Registered at the General Post Office, Melbourne, for transmission by post as a newspaper.

18/F

The Oldest Established Australasian Fruit Monthly.

THE FRUIT WORLD & "Market Grower"

IMPERIAL MYCOLOGICAL INSTITUTE 17 JAN. 1936

ESTABLISHED 36 YEARS.

Circulates to Growers of Dried, Canned, Deciduous, and Citrus Fruits, Market Gardeners, etc. Throughout Australia, New Zealand and abroad.

Vol. XXXVI. No. 12. DECEMBER 5th, 1935 Price 6d.

The Editor Extends

Heartiest Christmas Greetings

and

Best Wishes for the New Year

To All Engaged in the Fruit Industry

APPLE WASHERS and DRIERS. Only most suitable for Australian requirements.

1-2 to 5 Quality Sorting Tables and Sizers.

Pear and Lemon Graders. Single File Elevators, Lidding Presses, etc.

Specialised Orchard Implements, Tractor and Horse-Drawn of all classes.

PACKING BINS ON **ONE SIDE** ONLY or **BOTH SIDES** AS REQUIRED.

The "Lightning" System of Sizing

Without Injury CANNOT BE EQUALLED FOR MANY REASONS AND BECAUSE OF THE MANY PATENTS WHICH ARE EXCLUSIVE "LIGHTNING" FEATURES.

Special "Count" Roller
specially stepped to give the exact size for each count. Inexperienced packers can pack to the correct height and tightness without selection from the bin.

Fractional Adjustment
by means of which the height between the roller and conveying belt can be simply and quickly increased by the most minute fraction, according to the "count" required. Any section can be adjusted independently, without stopping the machine or affecting the packer. No cumbersome bolts or screws—a turn of the thumb-screw is all that is necessary. **Fractional Adjustment** used in conjunction with the "Lightning" "count" roller has enabled us to retain the smooth, unbroken surfaces of the rubber roller, thus obviating **all fear of injury** from gaps or corners in any sizing element presenting a broken surface to the fruit.

Two or More Bins for One Size
By the simple movement of a lever, two or more bins can be used for the same size fruit, and by the opposite movement, the size is brought back to its original setting without any further adjustment—both quick and accurate.

Scalloped Rollers
prevent the fruit from rubbing against the side of the Sorting Tables or Elevators, and on two or three different grades, cutting out **all division boards** which injure the fruit and are fatal to all long-stemmed Pears. Small fruit squeezes under the division boards and sorters **drop the fruit over it.** Scalloped rollers are patented and can only be used on "Lightning" equipment.

Special Pear Roller
Placed at the mouth of the elevator and which absolutely prevents the stem of the Pear from being chopped. **The ordinary plain elevator cannot handle long Pears without chopping**—therefore, this Patent is also indispensable to the Pear grower.

THE "LIGHTNING" FRUIT GRADER CO., 517 Albion Street, West Brunswick Melbourne, N.12, Australia.

BENDER & CO. PTY. LTD.

100 Elizabeth Street, Launceston

And at Huonville

P.O. Box 394 Launceston

Telegrams & Cables "Benco"

Shipping Agents - Cool Storage Proprietors - Fruit Exporters

(Accommodation 25,000 Cases)

Agents for Cooper's Famous Sprays. Direct Importers of Apple Wrapping Paper, Pine[illegible]es, Etc.

WE WANT TO:

Supply your Orchard Requisites. — — — Assist in Marketing your Crop.

Blyth's "BLUE BELL" Quality Sprays

MADE IN AUSTRALIA

For Twenty-five Years "BLUE BELL" Arsenate of Lead has Proved a Faithful Friend to Growers.

Extract "BETTER FRUIT," U.S.A., February, 1934:

"Codlin Moth and Its Control," by LEROY CHILDS, Superintendent Hood Experimental Station.

CODLIN MOTH has been given increasing attention by many investigators for a period of more than 50 years. Innumerable Insecticides and combinations of insecticides have been tested throughout the world.

A survey of the experimental work conducted in Oregon, Washington and Idaho, points out definitely that the codlin moth can be controlled by employing the old standard method of Arsenate of Lead. A resume of experimental data brought up to date, indicates conclusively that there is extant no satisfactory substitutes for Arsenate of Lead.

Arsenate of Lead (Paste or or Powder), Lime Sulphur, Special Copper Mixture (Fungicide), Spray Spreader, White Oil, Nicotine Sulphate, Red Oil, etc.

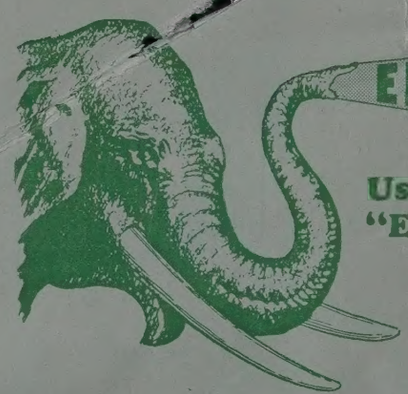
Blyth Chemicals Ltd. 31 Queen Street - Melbourne

Phone Cent. 756

INTERSTATE AGENTS—

Tasmania: W. D. Peacock & Co. Ltd., Princes Wharf, Hobart. H. Jones & Co. Ltd., Charles St., Launceston.
New South Wales: Lanes Ltd., Abercrombie St., Sydney.
Queensland: A.C.F. and Shirl[illegible]s Fertilizers Ltd., Brisbane.
South Australia: George Will[illegible] Gilbert Pla[illegible] Stre[illegible] Co. Ltd., 313 Murray
Western A[illegible]

Works: PRAHRAN GROVE, ELSTERNWICK, VICTORIA — L 1468.



ELEPHANT BRAND SPRAY

Use "ELEPHANT" Brand Arsenate of Lead—Quality Stands Alone.

Insist Upon it!

FRUIT GROWERS generally have come to depend on "Elephant" Brand Sprays. They find them absolutely reliable, efficient and of guaranteed quality.

We can supply all your Spray Requirements—ARSENATE OF LEAD (Paste or Powder), **SPRAY SPREADER, SPECIAL COPPER MIXTURE, LIME SULPHUR, WHITE OIL, NICOTINE SULPHATE, RED OIL, Etc.**

Extract "BETTER FRUIT," U.S.A., February, 1934: "Idaho Spray Programme for Codlin Moth Control, 1934," by Dr. Claude Wakeland, Department of Entomology, University of Idaho. Experiments in the State for the past six years have shown that LEAD ARSENATE is the best, as well as the most economical insecticide that we have tested for Codlin Moth control. Entomologists are agreed that there is no substitute for Lead Arsenate that can be recommended to the public.

JAQUES PTY. LTD., Are Actual Manufacturers and Distributors of "ELEPHANT" Brand Sprays.

Factory: MADDEN GROVE, BURNLEY, E.1, MELB., Vic. Telephone: J 2008.

City Office: 31 Queen St., Melbourne. Telephone: Cent. 756

INTERSTATE AGENTS:

N.S.W.—Producers' Distributing Society Ltd., Valentine and Quay Streets, Sydney.
Q'ld.—Buzacott's Ltd., Adelaide Street, Brisbane.
S.A.—Silbert, Sharp & Bishop Ltd., Rundle St. E., Adelaide.
W.A.—Westralian Farmers' Ltd., 569 Wellington St., Perth.
Tas.—R. Nettlefold Pty., Hobart. Bell & Gerrard, Launceston. Cocker, Bell Pty., Devonport.
N.Z.—Pizzey, McInnes Ltd., Box 1114, G.P.O., Auckland.

Are You Interested in - POULTRY - GARDENING - STAMP COLLECTING?

"THE AUSTRALASIAN POULTRY WORLD"

Contains Seasonable Articles by Experts, dealing with all branches of the Poultry Industry and Feathered Stock generally.

Designed to help and interest the Commercial Egg Farmer, the Stud Poultry Breeder, and Exhibitor, the Bird Fancier, etc.

"THE AUSTRALIAN GARDEN LOVER"

Special Features for Every Gardener on Seeds, Seedlings, Bulbs, Roses, Gladioli, Dahlias, Carnations, Chrysanthemums, etc. Australian Native Flowers, Shrubs, Orchids, etc. Bush-house and Glasshouse Notes. Home Notes and Recipes.

"THE AUSTRALIAN STAMP MONTHLY"

A Monthly Newspaper devoted to the interests of Philatelists. Official Organ of Australian Philatelic Societies.

Keeps you abreast of the times and developments in Stamp Collecting all over the World.

Subscription to Any One of these Publications - 6 - per annum or 6d. Monthly at All Newsagents

WRITE FOR SAMPLE COPY.

HORTICULTURAL PRESS PTY. LTD., Box 1944, G.P.O., Melbourne

ANNUAL SUBSCRIPTION WITHIN THE COMMONWEALTH AND NEW ZEALAND, 6/-, Post Free. Including "Fruit World Annual," 7/6 per annum.
SIXPENCE PER COPY.
OVERSEAS, 8/6, Post Free. (Including "Annual," 10/- per an.)

THE FRUIT WORLD & MARKET GROWER

AN EXCELLENT ADVERTISING MEDIUM BECAUSE OF ITS WIDE AND COMPLETE CIRCULATION.

ADVERTISING RATES ON APPLICATION.

A Monthly Newspaper published in the interests of the Berry Growers, Deciduous, Citrus, Dried and Canned Fruitgrowers, and Market Gardeners.

— by the —

8-10 ORR STREET, (Off 78 VICTORIA ST.) MELBOURNE.
Box 1944, G.P.O. - - Phone: F 2656 (2 lines).

FRUIT WORLD PTY. LTD.
(Members of the Australian Monthly Newspapers' Association)

439 KENT STREET, SYDNEY.
Phone: M 6751 (3 lines).

NEWS IN BRIEF

The recent criticism by Sir Stanley Argyle, ex-Premier of Victoria, regarding poor quality of Australian products in England, and inefficient marketing do not appear to be well grounded. The butter industry has given a complete answer to Sir Stanley's comments. The steady improvement in the pack of fresh fruit is rather worthy of commendation than adverse criticism. Buyers in the U.K. are operating with confidence in Australian Apples and Pears.

With Jonathan Apples, fruit from lightly cropped trees should not be exported or stored. It has not the stamina of fruit from fully cropped trees. With varieties like Cox's, Ribston and Cleo., even moderately light crops should not be exported or stored—only good to heavy crops.

Experience has proved that Apples from lightly cropped trees are inferior to that from more heavily cropped trees.

It is a great mistake to mix in a case or in a line the fruit from lightly cropped and heavily cropped trees, or even to pick both at the same time.

The U.S.A. commercial Apple crop for 1935 is reported at 98,905,000 bushels, which is 35 per cent. higher than the 1934 crop. However, the crop of the Western States is only 7 per cent. higher than last year. It is the fruit from these Western States of U.S.A. (and particularly Washington and Oregon) that has come into competition with Australian Apples in U.K.

The Primary Products Marketing Act has been duly proclaimed and is law in Victoria. The only fruits included are Apples and Pears and citrus. Leaders of the citrus industry point out the difficulty of working under this act in Victoria, as complete control of the product in the State is the main purpose of the Act, and 40 per cent. of the fruit marketed in Melbourne comes from the other States. The matter will be discussed at the annual conference of the Victorian Central Citrus Association at Melbourne in January.

During the recent sudden spell of hot weather in early December, extensive damage was done to Apple crops on the Mornington Peninsula through sunscald.

The hailstorm in November and now the sun scorch have seriously reduced the exportable crops.

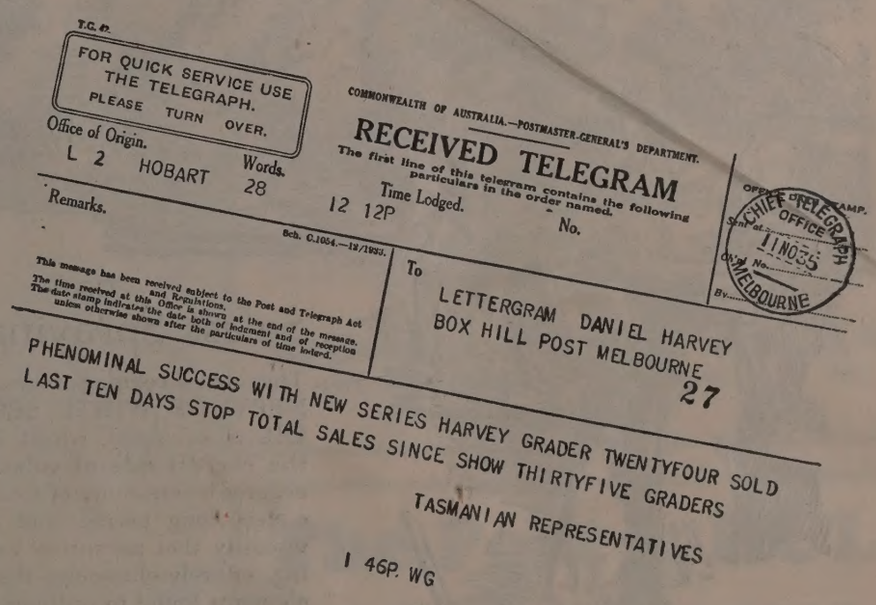
MR. BROWN FOR LONDON.

Empire Fruit Conference, July, 1936.

Mr. Geoffrey W. Brown, President Victorian Fruit Marketing Association, and a member of the Executive of the Australian Apple and Pear Export Council has been appointed the delegate of the Council to attend the Empire Fruit Conference at London in July, 1936.

The Victorian Government Statist reports that there are fewer orchardists in Victoria than three years ago: 6,685 as compared with 7,049, and the area had fallen from 75,280 acres to 74,763 acres. Apples and Pears show slight decreases, but there is a marked decrease in some other fruits.

SUCCESS! OCTOBER


T.C.P.
FOR QUICK SERVICE USE THE TELEGRAPH.
PLEASE TURN OVER.
COMMONWEALTH OF AUSTRALIA.—POSTMASTER-GENERAL'S DEPARTMENT.
RECEIVED TELEGRAM
The first line of this telegram contains the following particulars in the order named.
Office of Origin.
Words.
L 2 HOBART 28
Time Lodged.
12 12P
Remarks.
No.
Sch. C.1054.—12/1933.
This message has been received subject to the Post and Telegraph Act and Regulations.
The time received at this Office is shown at the end of the message.
The date stamp indicates the date both of lodgment and of reception unless otherwise shown after the particulars of time lodged.
To
LETTERGRAM DANIEL HARVEY
BOX HILL POST MELBOURNE
27
PHENOMINAL SUCCESS WITH NEW SERIES HARVEY GRADER TWENTYFOUR SOLD
LAST TEN DAYS STOP TOTAL SALES SINCE SHOW THIRTYFIVE GRADERS
TASMANIAN REPRESENTATIVES
1 46P WG
CHIEF TELEGRAPH OFFICE
11NO35
MELBOURNE

Two Further N.S.W. Successes — State Cannery, *now* Co-operative Cannery, Leeton. Citrus Processing Plant — Gosford Bulk Leaders Co-operative Society.

DELICATE FRUIT—A NEW FIELD OF ACHIEVEMENT—TOMATO GRADING AND CLEANING.

"HARVEY" TOMATO GRADER AND POLISHER.— Testimonial from the Largest Tomato Grower in Western Australia.

I am very pleased to say that the "HARVEY" Grader and Polishing Brushes which I purchased through your firm, and have installed in my Tomato Plantation at Geraldton, West Australia, for Tomato grading is giving the utmost satisfaction. I have already sent over five thousand cases away this season, the sizing is perfect, and it has exceeded my expectations. The Polishing Brusher removes all the spray from the tomatoes much better than we have ever been able to do them by hand, and with a fraction of the cost.

I have had a lot of growers to see it, and they all think it is great. It has saved pounds so far for me, in the wiping of tomatoes alone. Everything is working well on the machine, and we have had no trouble at all. I feel certain that the Grader will pay for itself this season.—Wishing you every success, yours faithfully (Sgnd.) G. K. ALLEN.

SEE NOVEMBER SUCCESSES IN NEXT ISSUE.

D. HARVEY - Box Hill, Victoria

CONTENTS

Illustrations.

Currant Borer Moth (four illustrations) 5
Distillation Room in Vic. Departmental Laboratory .. 6
Citrus Processing Plant .. 8
Packing House of Clements & Marshall Pty. Ltd. 11
Delegates at Recent Conference of Apple and Pear Council at Factory of Tas. Standard Case Co. Pty. Ltd. 12
Pakenham Field Day 13
Mrs. Judah Green 16
Mr. F. Walker's Orchard, Lalla, Tas. (two illustrations) 29

Subjects.

Apple and Pear Export . 11, 12
Apple Consumption—Increasing 11, 40
Apple Growing in England . 33
Apples, Water Core in 26
Canned Fruits Section .. 15-17
Celery Culture 31
Citrus News and Notes .. 8, 18
Cold Storage in Australasia . 20
Crop Prospects—
N.S.W. 12
Victoria 22, 23
Western Australia 27
Currant Borer Moth 5
Dried Fruits Notes 14, 19
Export and Commercial 33
Field Day at Berri, S.A. 12
Firms in the Fruit Trade .. 35
Home Circle 39
Imperial Fruit Show, England 35
Insect Pest and Disease Control 5
Junior Section 38
Lead Arsenates 6, 7
Market Grower, The 31
Market Notes and Prices .. 36-38
Mid-Murray Notes 24
Motor Cars and Trucks 10
News in Brief 3, 4
N.S.W. News and Notes .. 12, 21, 34
New Zealand Citrus Embargo 8
Obituary 4
Orchard Fertilisers 13, 14
Organising the Fruit Industry 34
Our London Letter 35
Pear Export 33
Personal 4
Queensland 26
Relationship of Crop Size to the Keeping of Apples 9
Retailers' Section 32
South Australia 12, 24, 25
Strawberry Culture 7
Sugar Concession Committee 7
Tasmania 29, 33
Unharvested Fruit 40
Victorian News and Notes 22-24
Water Core in Apples 26
Western Australia 27

NEWS IN BRIEF.
(Continued)

HIGH TOMATO PRICES.

Prices for best Victorian Tomatoes soared to 24/- a case, and higher, in Melbourne during the last week of November, due to the hot weather and light supplies.

HENRY JONES CO-OPERATIVE.

At the annual meeting of Henry Jones Co-op. Ltd., held on November 27. The chairman of Directors, Mr. A. W. Palfreyman, said that while stocks of canned fruits had been cleared and prospects were encouraging, the jam industry was still in the doldrums with little prospect of profit. External investments made a large contribution to the earnings and dividends of the company.

In early December good lines of Apples rose to their highest prices this season on the Melbourne market—touching 12/- per case. Cool stores have effected satisfactory clearances.

Alterations and additions to the packing house of the Tyabb Co-operative Trading and Cool Stores Ltd. have been decided on by the management.

£100,000 FEDERAL GRANT FOR APPLES AND PEARS.

Commonwealth Government has placed £100,000 on the estimates for assistance to the Apple and Pear Industry.

:: :: ::

At the Hobart Conference of the Australian Apple and Pear Export Council, the point was stressed that this grant was in lieu of freight reduction.

This attitude was confirmed at the Council's executive meeting, and it was decided to request that this grant be made on a per case export basis.

A deputation from the Australian Apple and Pear Export Council interviewed the Prime Minister and the Minister on this subject and received a favorable hearing.

PERSONAL

Mr. W. Ranger has resigned from his position as manager of the Committee of Direction of Fruit Marketing, Brisbane, and also from the Canned Fruit Export Control Board. It is understood Mr. Ranger is accepting an appointment in England.

The C.O.D. has been advertising for a manager at a salary of £750 per annum.

Mr. Chas. J. Parnham, fruit exporter, of Melbourne, who is a member of the executive committee of the Victorian Fruit Marketing Association, returned at the end of October from a visit to London. Mr. Parnham speaks favorably of the reaction in London to the improvements in fruit export as a result of the activities of the Australian Apple and Pear Export Council.

Mr. W. Nunn, Orchard Supervisor, Dept. of Agriculture, has been transferred from the Kyabram (Vic.) district to the Vermont, E. Burwood, Wantirna area to take the place of the late F. V. Roberts.

Mr. A. E. Bullock has been appointed Orchard Supervisor for the Kyabram district of the Goulburn Valley. Mr. Bullock was for some years at the orchard of Mr. A. O. Leber, Doncaster, being closely associated with Mr. S. Fish, Government Biologist, in his black spot experiments.

Captain A. W. Pearse, of Sydney, representative in Australia and New Zealand of the Port of London Authority, paid a visit to Melbourne early in December.

Mr. E. E. Pescott, F.L.S., Victorian Department of Agriculture, delivered an appreciated lecture on codlin moth control at a meeting of the East Burwood Fruitgrowers' Association in November. He recommended growers to keep abreast of the times by reading "The Fruit World" and "The Journal of Agriculture." There was a large attendance. Mr. Crittenden presided.

OBITUARY

Mr. W. Cowlishaw, of Mangrove Mountain, N.S.W.

In the death of Mr. Walter Cowlishaw, of Mangrove Mountain, near Gosford, early in November, the fruit industry of N.S.W. loses a valued worker. The deceased was a prominent citrus grower, and was closely associated with growers' organisations. He was president of the Central Coast District Council of the Fruitgrowers' Federation of N.S.W., and for a considerable period was a member of the board of the Federation; he was one of the founders of the Kulnura Co-operative Citrus Packing House. Sympathy is expressed to Mrs. Cowlishaw and the relatives in the loss of this esteemed citizen. The deceased was 56 years of age.

The
Safest Spraying Oil

The intense refining process to which NEPTUNE WHITE SPRAYING OIL is subjected, whilst imparting the correct rate of volatility that ensures a continuity of toxic film for a very long period, and the right viscosity that permits of easy spraying, entirely eliminates the harmful elements found in ordinary spraying oils.

For clean fruit and healthy trees, use NEPTUNE WHITE SPRAYING OIL and spray at the strengths stated in our booklet, "Neptune White Spraying Oil"—*Free*—on application.

NEPTUNE
WHITE SPRAYING OIL

Spraying for Insect Pest and Disease Control

A Currant bush, attacked by the borer.

The Currant Borer Moth

Life History and Control Methods

(Aegeria tipuliformis Clerck.)

By R. T. M. Pescott, M.Agr.Sc., Entomologist, in the Victorian "Journal of Agriculture."

Pupal case protruding from the bark.

THE CURRANT BORER MOTH, a native of Europe, again has made its appearance in those areas in Victoria where Currants and berries are grown extensively. Growers in the Dandenong Ranges, in the Doncaster district, and in the suburban areas have reported losses from this insect. This pest was first reported from Victoria by Davey in 1927, who recorded having collected specimens of the moths during October and November of 1926 in suburban gardens around Melbourne. Since that time, apparently, the pest has spread into other areas, and unless adequate precautions are taken while this pest is still in its infancy in this State, damage may become very severe. In Tasmania, it has been known since 1917, and although originally found only in the northern part of the State, is now widespread over all parts of the island, where berries and Currants are grown.

Caterpillar feeding in Red Currant cane.

Host Plants.

The Currant borer moth, as the name suggests, is primarily a pest of Currants; Black Currants being most commonly attacked, although both Red and White Currants are susceptible. Of the berries, the Gooseberry and the Raspberry are most commonly attacked.

Overseas records show that plants other than Currants and berries may be attacked. Such plants include the Juniper (Juniperus), the Hazel (Corylus), the Spindle-tree (Euonymus), and the Black Elder (Sambucus).

Nature of Damage.

The damage resulting from this insect is confined primarily to the canes of Currants and the wood of berries. The larvae or caterpillars of the insect bore into the young canes, eating out the pith, then working downwards until finally they may reach to the roots. Such plants become very sickly, the foliage being dwarfed and yellowish, and the bushes are reduced greatly in productiveness.

During the winter months, it is not possible to distinguish affected canes in a bush. However, during early sping, definite signs are apparent. The new leaves produced on affected canes are yellowish and undersized, and such canes usually die within two or three weeks. The dead canes are frequently found with the tips broken off, showing a burrow running the entire length of the cane, partly in the pith and partly in the wood.

Life History.

The Currant borer moth overwinters in the form of a nearly full-grown larva, about half an inch long, inside the cane, and usually at a short distance above the ground. With the commencement of plant growth in the spring, the larva becomes fully grown, and eating from the pith into the wood, cuts out a small hole nearly to the bark, and then pupates.

During the months of October, November and December, the adult moth appears after the chrysalis has forced itself through the hole near the bark. The empty pupal case, which is a light yellowish-brown in color, is frequently to be found protruding from the bark. The perfect moth is about half an inch in length, with a wing spread of about three-quarters of an inch. The abdomen is metallic black, with a purplish sheen, and is banded with yellow stripes. At the tail end of the body is a fan-shaped mass of scales, black in color. The wings are quite unlike those of most moths in that they are transparent, the scales being almost entirely absent. Owing to this transparent nature of the wings, this moth is frequently not recognised as such, being more commonly considered by growers to be a wasp. Such is not the case.

The eggs, numbering from 20 to 60, are laid by the females in favorable spots on the bushes, such places usually being on young wood close to the buds. These eggs hatch, as a rule, within a fortnight, and the young larvae immediately proceeds to bore into the wood. On reaching the pith, it commences a general downward movement, in extreme cases finally reaching the region of the roots. When fully grown, the larva measures about half an inch in length, is creamy white in color, with a shining brown head. Overwintering takes place in the cane. There is only one generation per year.

Control.

Owing to the fact that the larva spends the whole of its life in the pith and wood of the canes, it is not possible to control this pest by spraying methods. Control measures therefore consist in the cutting out at ground level of all canes and twigs showing the presence of yellowish, undersized leaves with general dying back symptoms, and the canes and twigs must be destroyed immediately by fire.

The Adult Currant Borer Moth.

COSAN

THE WORLD'S SUPREME

Colloidal Liquid Sulphur

THE ORIGINAL ARTICLE AS USED IN NEW ZEALAND.

For Summer Spraying

Use COSAN and insure your crops against Brown Rot, Black Spot, Rust, Leaf Curl, Mildews, and all other Fungus diseases during growth. COSAN mixes satisfactorily with lead and will not damage fruit or foliage.

Colloidal Sulphur Pty. Ltd.

466 Swanston St., Carlton, N.3, Vic.

(Opposite Carlton Brewery.) F 1845.

The Port of HULL

... IS ...

THE FRUIT CENTRE

Serving a Population of Over 13,000,000 in the North and Midlands.

REGULAR SAILINGS TO CONTINENTAL PORTS provide unrivalled MARKETS for re-export of EMPIRE FRUIT.

Specially Constructed REFRIGERATOR VANS carry FRUIT direct from STEAMER to inland destinations by EXPRESS TRAINS.

RAPID HANDLING, QUICK DESPATCH, LOW CHARGES, and THE BEST PRICES. SEND YOUR FRUIT TO HULL.

TEN MODERN DOCKS entirely owned and managed by

THE LONDON AND NORTH EASTERN RAILWAY

Full information supplied by:—

AUSTRALIA.—BURNS, PHILP & CO. LTD.,

7 Bridge Street, Sydney. 312 Collins Street, Melbourne; and Branches.

LEAD ARSENATES

Spray Quality Improved

REPORT ON ANALYSIS OF SAMPLES.

A REPORT of analyses of samples of lead arsenate submitted to him is made by Mr. W. C. Robertson, Chemist of the Victorian Department of Agriculture, and appears in the November issue of the "Journal of Agriculture."

A study of the report reveals that there has been a considerable improvement in quality in the past few years, and it is expected that when the amendment of the Fungicides Act 1925 comes into force next year, a still greater improvement will be brought about by the new standard proposed.

The Most Important Weapon.

Used in fruit-growing countries throughout the world, lead arsenate is perhaps the most important weapon available to the orchardist for the control of insect pests. Until comparatively recently, however, the efficiency of this pest destroyer was, to some extent, uncertain because of the great variability in the chemical and physical composition of the samples offered for sale. Since the passing of the Victorian Fungicides Act, which was designed to protect orchardists from inferior fungicides, there has been a very considerable improvement in the quality of these products. This has been particularly the case with lead arsenate, the standard of which is still being improved.

Mr. Robertson states that commercial lead arsenates analysed this year, compared with those tested last year, show very satisfactory comparison. Arsenic oxide in suspension after agitation and settling was 3.16 this year against 2.39 last year, whilst on the dry basis, total arsenic recorded was 31.72 and 31.80 respectively.

When it is taken into consideration that the value of lead arsenate as an insecticidal spray depends upon several factors, the figures above show a great improvement in some brands over those tested last year. The factors particularly concerned are: 1, content of arsenic oxide; 2, percentage of arsenic oxide soluble in water, and 3, spreading power as portrayed by the suspension test.

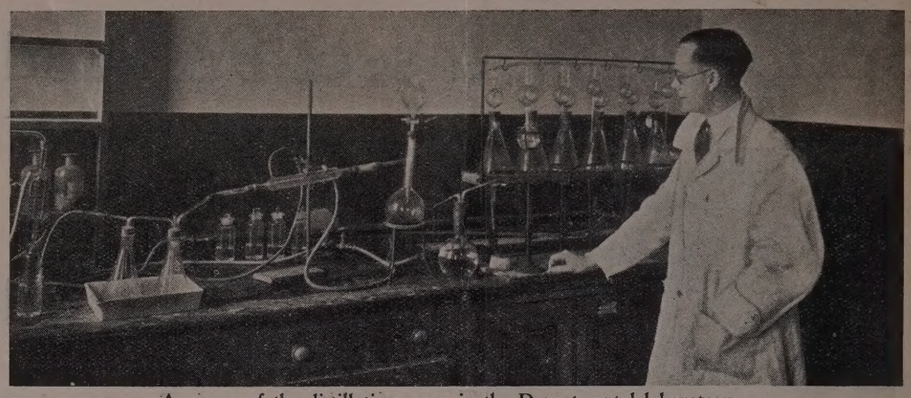
Acidity.

As the question of limiting the acidity of lead arsenate is under consideration, the samples of the various brands on the market this season were analysed for their acid content. The existing standard which is proclaimed for lead arsenate in Victoria does not limit the acidity, but the English standard provides a limit of 7.5 ccs. of N/100 soda solution to the water extract from 2.5 grms. of dry arsenate; this represents an acidity of approximately 0.19 per cent. calculated as nitric acid.

Of the fourteen samples analysed, only one exceeded this limit, and in this case the acidity exceeds 1 per cent., which is more than five times the limited quantity. The acidity of the arsenate may have an important effect in dual-purpose spraying or in double spraying, as, for example, lead arsenate-Bordeaux or Bordeaux before and after lead arsenate, because of the danger of the formation of soluble compounds which, with interreactions, will produce soluble arsenic.

Spray Admixture.

Many inquiries have been received from orchardists and market gardeners on the subject of mixing other spray compounds with lead arsenate for the purpose of dual pest control, and it is considered that a few comments would be of value at this stage. Ordinary lead arsenate, because of its acid character, is more liable to chemical change than basic lead arsenate.



A corner of the distillation room in the Departmental laboratory.

The latter compound is used in the United States of America in spray admixture, but is not on the local market. It may be manufactured by (1) treating basic lead acetate with arsenic acid; (2) by causing sodium arsenate to react with litharge (lead oxide) and nitric acid; or (3) by adding ammonia to the acid lead arsenate. Owing to the lower percentage of arsenic, the basic salt is inferior in killing efficiency to the ordinary acid arsenate.

Mixtures.

The following salient facts are given as a guide to growers contemplating the admixture of lead arsenate with lime sulphur, dry-mix sulphur, atomic sulphur, Bordeaux mixture, white oil, or nicotine sulphate.

Lead Arsenate (Ordinary) with Liquid Lime Sulphur.—This admixture is accompanied by chemical changes which (a) reduce the polysulphide and soluble sulphur percentage; (b) increase the soluble arsenic content; and (c) produce minor quantities of other soluble compounds which may have deleterious properties. In effect, the admixture of these two sprays compounds reduces the efficiency of the lime sulphur and, at the same time, produces a greater risk of damage from burning. The addition of chemical lime lessens the possibility of injury.

The use of basic lead arsenate in lieu of the ordinary arsenate is held by some investigators to be advan-

"VALLO"
Concentrated Liquid
Lime Sulphur

Guaranteed to contain a Minimum Polysulphide Sulphur content of 20%—Total Sulphur content not less than 28% of which percentage 71% is Polysulphide Sulphur.

A Dependable Spray for Fungus Diseases and Pest Control.

NOTE.—It has been proved that the Polysulphides alone possess fungicidal and insecticidal properties. This Concentrated Liquid Lime Sulphur is manufactured under conditions that produce a maximum of Polysulphides and a minimum of other constituents.

"VALLO"
Codlin Moth Tree Bands

Certain Death to all Grubs that attack Fruit Trees.

It is estimated that of all Codlin Moths more than 60% are females and that a female moth lays as many as 50 eggs. On the assumption that only 50% of the eggs are fertile, a kill of 100 grubs in a tree band is definitely responsible for the prevention of 2,000 moths in the first year.

The Band is actually a double trap, as it not only traps the grubs in the corrugations lying immediately next to the trunk of the tree, but a similar number are trapped and killed in the second series of small passages which are formed by the smooth outside section of the Band against the corrugated section.

YOUR ORCHARD IS NOT ADEQUATELY PROTECTED UNTIL FITTED WITH "VALLO" CODLIN MOTH TREE BANDS.

Manufacturers :

VICTOR LEGGO & FARMERS LTD.
218-222 Queen Street, Melbourne.

BRANCHES: SYDNEY, BRISBANE, ADELAIDE, PERTH.

tageous, the reactions being definitely retarded in this case, with a pronounced decrease in the amount of arsenic rendered soluble.

Calcium arsenate may be mixed with concentrated liquid lime-sulphur in the presence of free lime without any harmful chemical change. However, the existing disadvantages of calcium arsenate—i.e., its low covering power and comparatively large amount of soluble arsenic—remain unaltered.

Dry-mix lime-sulphur and atomic sulphur may be mixed in all proportions with lead arsenate without fear of any deterioration.

Acid Lead Arsenate with Bordeaux Mixture.—These spray compounds do not undergo any harmful chemical change when mixed, providing the Bordeaux mixture is prepared properly and is lime alkaline.

Acid Lead Arsenate with White Oil.—This mixture is in common use in Victoria, and it is interesting to note that white oil, which is distinctly ammoniacal, may convert the acid salt into the basic compound; otherwise the admixture would not be accompanied by chemical change.

Lead Arsenate with Nicotine Sulphate.—The above pest destroyers are compatible, and may be mixed in the proportions recommended without alteration in the efficiency of either spray. This is not the case, however, with calcium arsenate, which reacts with the nicotine sulphate to produce soluble arsenic.

While the admixture of pest destroyers, having for its objective a dual-purpose spray to lessen the cost of production, is very often wrong in theory owing to the chemical changes which take place, in practice it often proves satisfactory. One example is the common practice, in vogue in the United States of America, of mixing lead arsenate and liquid lime sulphur —a mixture which is known to result in double decomposition, with a proportionate loss in the polysulphide content of the lime sulphur. It would appear that climatic conditions play an important part, and, in all probability, this is the main reason why this admixture has proved unsuitable for Victorian conditions.

Strawberry Culture

Control of Insect Pests.

Strawberry Beetle: Of the pests which attack the Strawberry and other berry fruits, the Strawberry Beetle is probably the most destructive according to Messrs. Adam and Pescott, in the Victorian Department of Agriculture Bulletin No. 65.

Dependent upon climatic conditions, the pests generally appear in November and December, and are found as late as February. Having wings, it can migrate from one orchard to another.

Coming so late in the season, it is difficult to attack the larvae with a spray, and poisoned baits are therefore recommended, prepared as follows:—Calcium arsenate 1 lb., sugar or molasses 1 lb., bran 9 lbs., mix into a wet mash and place in pellets, the size of a Walnut, in the shade around the plants. If the cultivator is used early it will dislodge many of the pupae and expose them to attack from birds.

Tomato Weevil: This pest also affects Strawberry beds if allowed to breed on weeds and marshmallows on adjoining land. It will forsake its natural food and attack cultivated crops, going down into the soil in the daytime and coming up to feed at night.

To control the weevil, all weeds should be destroyed around the Strawberry beds and poison baits, similar to beetle baits described above, should be placed. If the crops are not ripening, a spray of 1 in 25 arsenate of lead may be used.

Take-all Grub: An outbreak of this pest can be responsible for considerable damage, which occurs during the night. Its main damage is done to young shoots and foliage, but it does not feed on the roots of the plants as is generally believed.

Control is advised by using poison baits as described above for the Strawberry weevil and soil fumigation with carbon bisulphide is also recommended.

Sugar Concession Committee . . . Fourth Annual Report

REDUCTION OF COSTS URGED

IN the report covering the activities of the Committee for the year ending August 31, it is pointed out that although the overseas markets for canned Apricots, Peaches and Pears are fairly satisfactory at present and can absorb all the surplus Australian production, growers and processors should not regard this condition as permanent or with unwise over-confidence.

During the next few years the industry may possibly encounter conditions of such a nature that the committee's funds would be unable to bridge the gap between production costs and prices received. Such circumstances would include a fall in export values, a less favorable exchange rate or an exceptionally large export production.

Any or all of these eventualities being possible, the report advises canneries to studiously consider every possible reduction in production, marketing and distribution costs. Abnormal overhead costs have already had a bad influence upon the activities of some companies, requiring assistance from Government, and affecting the whole industry.

The average returns per ton to Australian growers during the period between 1932 and 1935 has been substantially in excess of that received by U.S.A. growers, but such a position may not indefinitely continue. In the case of berry fruits, the principal factories were unable, for the first time since the committee was established, to absorb all available supplies and with an increase of production of berry fruits in Great Britain, the chief overseas outlet for Australia's surplus production, pressure may be brought towards tariff protection upon berry fruits from all sources, or this market partially or entirely closed.

Rebates Paid.

The report said that the main disbursements and allocations of funds were as follow:—

Domestic Sugar Rebate: £62,614 paid, being an increase of £4,126 on 1933-34, and representing a consumption of 28,461 tons of sugar in the manufacture of fruit products.

Export Sugar Rebates: £62,599 paid, being an increase of £2,228 on 1933-34.

Export Assistance: The expenditure of £105,084, being £72,017 less than the payments during the previous year. The latter payments, however, included large sums in respect of previous seasons.

Personnel of the Committee.

No change in the personnel of the Committee occurred during the year, and remained as follows:—

Mr. A. R. Townsend (Chairman), representing the Commonwealth Government.

Mr. W. J. Short (Deputy Chairman), representing the Queensland Sugar Board.

Mr. P. A. Feil, representing the growers of jam fruits.

Mr. W. Young, representing the growers of canning fruits.

Mr. A. W. Palfreyman, representing the manufacturers of fruit products.

Mr. A. W. Fairley, representating the co-operative manufacturers of fruit products.

During Mr. Young's absence overseas, his representation was undertaken by Mr. J. G. B. McDonald, of Shepparton.

Minimum Returns.

During the year, an advance of minimum prices was made possible by a firming tendency on the overseas markets and the absence of large carry-over stocks. All available supplies of canning quality were purchased. A comparison of prices paid during the past four years is quoted:—

Per Ton.

	1932.	1933.	1934.	1935.
Apricots . .	£10	£12	£8	£12
Peaches . .	£12	£12	£7	£10/8/0
Pears . .	£10	£12	£7	£9/15/0

Sugar Agreement Benefits Industry.

In conclusion, the report states that there is abundant evidence that in the four years of the Committee's operations, the fruit industry has benefited by the application of the sugar agreement to assistance upon exported manufactured fruit products. In spite of world depression, two record export packs of canned Apricots, Pears and Peaches were reported. A similar report can be applied, in a less degree, to other fruits.

STRAWBERRY DISEASE.

Growers Urged to Work Only From Healthy Stocks.

Importance of Good Drainage.

Officers of the Victorian Dept. of Agriculture are studying the peculiar fungus disease which is attacking Strawberry plants. The Government Biologist (Mr. S. Fish) states that the Melba variety appears particularly susceptible, while Wilson's Pride and British Queen appeared immune. Growers are recommended to take stocks from healthy plants and to pay particular attention to drainage.

SHOWS TO COME.

Somerville (Vic.)—March 25, 1936.

COOPER'S

Colloidal Sulphur

Superior to all other forms of Sulphur

Its tonic effect on foliage is truly remarkable

Used for the control of all fungous diseases of Fruit Trees, Vines and Vegetables, for which sulphur in any form has previously been used; particularly Black Spot and Powdery Mildew of Pome Fruits, Oidium of Vines, and Brown Rot of Stone Fruits.

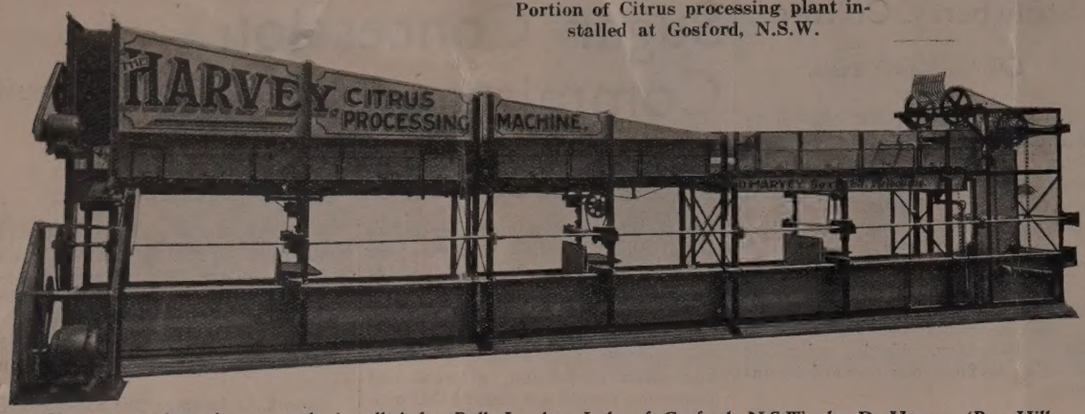
Obtainable from all Fruitgrowers' Associations, etc., or from the Victorian Distributor:—

F. R. Mellor -- 440 Elizabeth Street -- Melbourne

William Cooper and Nephews (Australia) Ltd.

4 O'Connell Street, Sydney

Portion of Citrus processing plant installed at Gosford, N.S.W.



Citrus processing plant recently installed for Bulk Loaders Ltd., of Gosford, N.S.W., by D. Harvey (Box Hill, Vic.). This complete and compact processing plant, after washing and sterilising the fruit, elevates it on to scrubbing brushes. After passing on to the drying rollers the fruit is conveyed to the polishing brushes, thence to a cross belt, which takes the fruit to a two-quality sorting table. From the sorter the fruit passes to a two-quality Harvey grader for grading and packing according to size. This machine is capable of grading 1,000 to 1,250 cases per day.

The biggest thief in your Orchard is.....

The Codlin!

"Aero" BRAND HIGHEST QUALITY

TRADE MARK

Keep your orchard Codlin-free by spraying your apples and pears with "Aero" Brand Arsenate of Lead. Awarded "Gold Medal" All-Australian Exhibition, 1930.

THERE are no statistics available which indicate to Australian orchardists the value of the damage done by their greatest enemy—the Codlin Moth—but there is no doubt that the loss caused year by year represents a very large sum.

In order to cut his loss to a minimum the wise orchardist proofs his fruit against the attack of the Codlin by spraying his trees regularly and thoroughly with "Aero" Brand Arsenate of Lead.

The orchardist who has once proved "Aero" Brand knows full well the value of this superlative product in protecting his crop.

BICKFORD'S "Aero" Brand

ARSENATE OF LEAD

By every Test Bickford's "AERO" Brand is Best

SOLE MANUFACTURERS:

A. M. BICKFORD & SONS LIMITED

Wholesale Manufacturing Chemists and Druggists

ADELAIDE AND BRISBANE

TASMANIA (Northern Districts):
Gardner & McKenzie Pty. Ltd.,
64 Cameron Street, Launceston.

TASMANIA (Southern Districts):
Port Huon Fruitgrowers' Co-op. Association Ltd.,
Davey Street, Hobart.

Interstate Agents:

NEW SOUTH WALES:
Buzacott & Co. Ltd.,
7-11 Market Street, Sydney.

VICTORIA:
Ramsay & Treganowan Ltd.,
469-477 Latrobe Street, Melbourne.

WESTERN AUSTRALIA:
Felton, Grimwade & Bickford Ltd.,
297 Murray Street, Perth,
and at Kalgoorlie.

QUEENSLAND:
Buzacotts (Queensland) Ltd.,
443 Adelaide Street, Brisbane.

GOODMAN'S FRUIT TREES

And Fruit Tree Stocks

Sturdy, Reliable, free from insect pests, true to name. Suit all districts. All varieties in **Apples, Peaches, Pears, Plums, Apricots, etc.** Prompt despatch any address.

—— Catalogue Free ——

C. J. Goodman
PICNIC POINT NURSERIES,
BAIRNSDALE, Vic.

N.Z. CITRUS EMBARGO.

Hopes of its Early Removal.

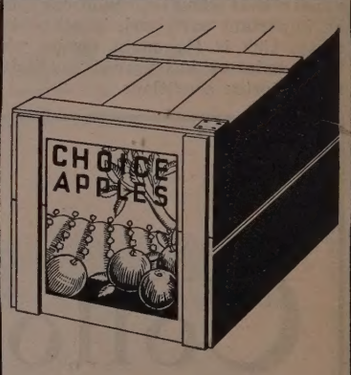
THERE ARE HOPES in well-informed circles for the early removal of the N.Z. prohibition against the importation of Oranges from N.S.W. and Victoria.

It is understood that the United States will no longer insist as a condition for the importation of Apples and Pears from New Zealand, that Oranges from N.S.W. and Victoria shall not be imported into the Dominion.

It is to the credit of the Australian and New Zealand delegates representing the Apple and Pear industry, that for the second successive term, an agreement has been reached regarding mutual export to U.K.

This stands out in bold contrast to the negotiations regarding Australian Oranges for New Zealand, into which political considerations have been imported.

However, it will be a relief to both countries if the present impasse can be ended. The general public of New Zealand is just as anxious to have Oranges from N.S.W. and Victoria as the Orange growers are to send them.



GOOD LABELLING
Demands
THE BEST PASTE

That's

DAVIS 333 ADHESIVE

THE BEST COLD WATER PASTE IN THE WORLD

Obtainable from all Hardware, Paint and other Stores.

The Relationship of Crop Size to the Keeping of Apples

FRUIT FROM LIGHTLY CROPPED TREES IS INFERIOR TO THAT FROM HEAVILY CROPPED TREES :: FRUIT FROM HEAVILY AND LIGHTLY CROPPED TREES SHOULD NOT BE PICKED AT THE SAME TIME :: FRUIT FROM LIGHTLY CROPPED JONATHAN, COX'S RIBSTON AND CLEO SHOULD NOT BE EXPORTED OR STORED.

A paper by W. M. Carne, Council for Scientific and Industrial Research, before the recent Conference of the Australian Apple and Pear Export Council, Hobart.

EVERY APPLE GROWER KNOWS that the fruit from lightly cropped trees is inferior to that from more heavily cropped trees of the same variety grown under the same conditions. It would appear, however, that this knowledge is not used as it should be when it comes to the picking of Apples for storage or export. If it were, there is little doubt that the complaints of wastage in Cox's Orange Pippin, Ribston Pippin, and Jonathan in overseas markets would be fewer and less justified.

Investigation has shown that the keeping quality of Apples depends upon:—

The variety.
The conditions under which they are grown.
The seasonal climate.
The crop on the trees.
The maturity of the fruit when picked.
The injuries and temperatures, etc., experienced after picking.

The time the fruit is held.

I propose to deal only with the effect of crop size.

Our system of judging crop size has been based not on the number of fruits on a tree, but on the average size of the fruit. By this means, the crops of different trees growing under the same conditions can be compared. The method is based upon the assumption that fruit size is inversely related to the crop size. What a tree can carry depends upon the growth conditions of the previous season, the set of fruit, and the growth conditions of the same season. According to rainfall, etc., the same number of fruits may be too many and too small in one season (1934) and too few and too large in another (1935).

An even better system

is to compare the average size of the fruits of different trees with an arbitrary selected normal size, at a selected date in the ordinary picking period. The normal size is the one found most desirable for marketing. This method requires experience of some years before a definite and final selection of size and date can be made. The date would necessarily vary somewhat in different places. So far we have found that in Cox's Orange Pippin 2¼ average in third week of February appears to be a satisfactory standard.

During the past three years, we have been able to compare in various ways the fruits of trees with lighter, normal and heavier crops grown on the same soil under the same conditions, and close together. This has been done for **Cox's Orange Pippin, Jonathan, French Crab, Democrat, Sturmer, and Crofton.** The observations made have been on:

(1) The chemical and physical charters of the fruit.

(2) The development of cork (pit-like disorders), and water core in fruit still attached to the tree.

(3) The development of defects during and after cool storage and during storage at ordinary temperatures.

(It should be pointed out that the wastage in fruit coming out of cool storage has often had little relation to the wastage developed after it has been exposed to ordinary temperatures for one to three weeks. This applies particularly to breakdown.)

The results of the observations have been so invariable as to justify the assumption that they probably apply to all varieties in greater or lesser degree. Observation supports this conclusion.

When the fruits of lighter crops have been compared with heavier crops grown under the same conditions, they have been found invariably to differ considerably. The light crop fruit, compared with heavier at the same date:

Is **larger in average size.**

Is **earlier to change its ground color** from green to yellow-green, but has less flush color.

Has a **higher total acidity.**

Has a **higher content of sugars** and other soluble solids in its juice.

Has a **higher resistance in pressure tests.**

Probably respires more rapidly (but this has been tested only to a limited extent in one season).

Is less advanced in starch loss.

As light and heavy crops tend to alternate on the same trees, it follows that, apart from seasonal effects, the fruit from the same tree tends to vary from season to season in the characters mentioned. It is of even greater interest that the evidence so far available shows that the differences between light and heavy crops in the same season are on most points the same sort as those between similar crops in poor and good keeping seasons.

Whilst the fruit is still on the tree, light crop fruit as compared with heavy is:

Earlier and more affected by water-core in susceptible varieties like Jonathan, Cox's Orange Pippin, and French Crab.

More affected by tree pits or cork, as in Cleo. and Sturmer. This probably does not apply to internal cork.

More affected by hollow core, as in Cleo.

The effects of storage on light as compared with heavy crops grown under the same conditions are equally definite. Stored under the same conditions, and picked on the same day, light crop fruit is:

More susceptible to rots.

More susceptible to storage pit.

More susceptible to premature breakdown, whether associated with water core, bitter pit, or low temperature.

Becomes mealy and over-ripe earlier, and develops core-flush and old-age breakdown earlier.

Less susceptible to Jonathan spot (probably because of less red color).

The results show how undesirable it is to mix in the same line light and heavy crop fruit, or to pick both at the same time. Experiments with such a wastage-susceptible variety as Cox's Orange Pippin have shown that the elimination of light crop fruit markedly raised the general keeping quality of a line. The same probably applies to Ribston Pippin, and is certainly true to a lesser extent for Jonathan. There is little doubt that much of the trouble with pit in the early shipments of Cox's Orange Pippin each season is due to the fruit coming largely from light crop trees. Such fruit reaches size and starts to color first.

The Following Conclusions

on the evidence so far obtained appear justified:

Light crop fruit should be picked early. It should never be packed with or in the same line as good to heavy crop fruit.

In varieties like Jonathan, which are at times subject to considerable wastage, very light crop fruit should not be exported or stored.

In varieties like Cox's Orange Pippin, Ribston, and Cleopatra, especially from orchards in which pit has given trouble, even moderately light crops should not be exported or stored, only good to heavy crops.

In Cox's Orange Pippin and probably Ribston, good crops every second year appear to be preferable to moderate crops each year, provided the off-year fruit is not stored or exported. In the experiments, good crops have given good keeping fruit, moderate crops moderate keeping fruit, and light crops, poor-keeping fruit.

SPRAY HOSE

BURST PROOF ALL RED

HAND-MADE BY

HARDIE RUBBER CO. LTD.

"EVERY INCH AUSTRALIAN"

Obtainable at All Stores.

"FRUIT WORLD" APPRECIATED.

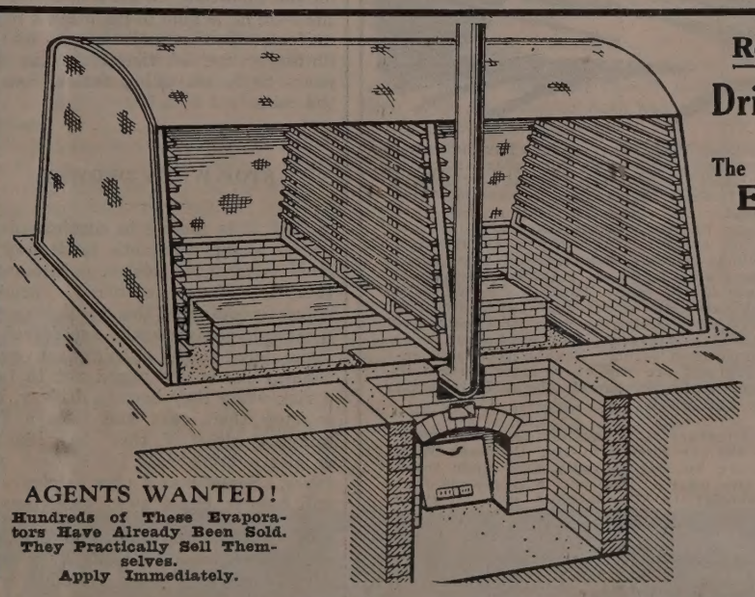
"H.W.S.," Kingston-on-Murray, South Australia, writes as follows:—Please find enclosed cheque to cover my own subscription and Mr. A. W., of Cobdogla, South Australia. I hope that your very instructive monthly will continue to develop.

I am travelling about amongst the fruitgrowers quite a lot, and never get held up on technical points appertaining to fruit growing, and have only to quote the "Fruit World" and I win.

That method of book-keeping you sent me some time ago (from the "Fruit World Annual") is a real gem, and helps me immensely.

Landlady (to new boarder): "How do you like your eggs boiled?"

Boarder "Two at a time, please."



Remarkable Invention

Dries Fruit in 3 Days!

Rain or Shine.

The ALL-WEATHER Patent EVAPORATOR

By this process fruit can be dried in three days with absolute certainty of satisfactory results. The product is remarkably even in color, and comes out with unimpaired bloom, carrying a really appetising appeal to the buyer.

Compare this with the costly and tedious rack-drying process—and, remember, drying can start with picking. Weather cannot affect the efficiency of the evaporator. Rain or shine—Dry in three days!

New trays are not required. Simple, economical, efficient, reliable. Requires no attention except for occasional firing.

Saves Time — Saves Fruit — Saves Racks — Saves Worry.

Write for Full Particulars.

AGENTS WANTED!

Hundreds of These Evaporators Have Already Been Sold. They Practically Sell Themselves. Apply Immediately.

SOLE MANUFACTURERS AND DISTRIBUTORS:

Horwood Bagshaw Ltd.

Offices & Works: MILE END, S.A. BOX 381D, G.P.O., ADELAIDE, S.A. Showrooms: 78 CURRIE ST

Motor Cars, Trucks, Tractors

Balloon Tyres on Tractors

ONE modern improvement to the tractor for farm work has been the equipment of large balloon tyres. At first the farmer was hesitant as to this application, but such hesitancy is fast losing ground, and the users of balloon-tyred tractors generally find them very serviceable.

One user of such machines gave his experiences in a recent issue of "Farm Journal". (U.S.A.), when he reported that after a full year's heavy work, covering a great variety of operations under all sorts of soil and weather conditions, and in comparison with steel wheels the year before, he made a gain of 20 per cent. in work output, with a corresponding saving of fuel.

He claims that the rubber tyres added extra power, so that a three-bottom plough was possible, whereas previously a two-bottom plough was his maximum load; in this way he speeded up his ploughing by nearly one-third, and cut his fuel consumption from 2.23 gallons per acre to 1.69 gallons per acre for the season.

In giving some practical advice regarding the use of tractors, he concludes:

"Rubber tyres are probably the most efficient type of wheel equipment under normal working conditions. If it is necessary to be able to work under all conditions, one should add a set of special tractor tyre chains to his equipment.

"Rubber tyres should prolong the life of a tractor in several ways. First, road shocks are greatly reduced. Besides this, the rubber cushions the entire transmission mechanism. The drive wheels, contacting the ground, act in the capacity of a friction clutch between the tractor and the implement. When overloaded, this clutch slips, the rubber tyre clutch slipping smoothly, while the lugged wheel clutch slips with a jerky action comparable to a gear slipping cogs. These tyres, after three years of service, show no appreciable wear.

"Rubber tyres mean an added investment to a tractor. To compensate for this, they will add about 20 per cent. to the capacity of the tractor by allowing the use of higher gears while pulling the same load. At the same time they will also save close to 20 per cent. on the fuel bill. The saving in wear and tear on the tractor unit as well as on the operator are factors hard to estimate, but I would guess that they were as important as the fuel-saving. In short, after another year's experience with rubber tyres, if I were buying a new tractor this spring I think I would want it equipped with rubber, and probably would add a set of chains to the job to take care of emergency conditions."

WHY CARS RUN BETTER AT NIGHT.

One frequently hears the statement that motor cars appear to run better at night than in the day-time. There is a certain amount of justification for this belief, the explanation being that the air at night is usually cooler than in the day-time. Since cool air is more dense than hot air, and the efficiency of the engine is affected by the weight of air which can be taken into each cylinder, more power will be developed in the cool atmosphere at nights. The type of petrol used is also an important factor, for unless the petrol is volatile and can be easily evaporated under cold conditions, each cylinder will not get its full charge of petrol vapor. Another ingenious explanation of improved running at night is the effect of the more peaceful conditions of night driving on the motorist. With less traffic on the road he is able to maintain a more uniform speed, and owing to the limited range of vision the car appears to be travelling faster than is the case.

STOP WHEN DROWSY.

That it is foolish to continue driving at night when one is drowsy is most excellent advice. Numerous fatalities have occurred through drivers nodding at the wheel even for a second. Drivers who are forced to make long tours at night on quiet country roads are urged not to take a risk when they become drowsy, but to stop their cars and take a few minutes' sleep if they feel like it, or else a brisk walk for a short distance. Sometimes a pipe or cigarette will help to chase away sleepiness.

It would be of value to motorists if those that have to make very long drives and have been troubled with the sleepy feeling, would supply other suggested remedies that they have found to suit them. A few more or less violent exercises or skipping, or even giving oneself a sharp knock, causing pain, is helpful. A cup of hot tea or coffee from a thermos flask will be found helpful.

HEAVIER FUEL THAN KEROSENE SHOULD NOT BE USED IN A TRACTOR.

The motor car engine is designed to run on motor spirit, while a tractor is designed to run on kerosene. This means that the whole of the carburettor and the induction system are designed for a particular purpose, and if kerosene is used in a motor car engine, the engine will not function owing to the fact that it is not designed to operate on such a fuel.

In the tractor, considerable heat is given to the induction system in order to ensure that the kerosene will vaporise sufficiently and arrive in the cylinder in a condition to be burned. If an attempt is made to use a heavier fuel than kerosene without making any alteration to the tractor, it will be found that fuel will not arrive in the cylinder in a suitable condition to be burned, with the result that excessive crankcase dilution will occur.

If the induction system is heated to a greater extent, it may be possible to get the fuel into the cylinder in a reasonable condition, but, as the induction system is heated to a greater extent, so the efficiency of the engine falls off badly, and instead of developing, say, 20 h.p., which it is possible to develop on kerosene, it is only possible to develop 15 h.p. on the heavier fuel, and that at the expense of dilution of the crankcase oil, which means the more frequent changing of that oil.

BATTERY SYSTEM.

Test the battery by switching on the lights. If they do not light brightly, the battery is either nearly discharged or the terminals are in bad condition. They should be inspected, and, if corroded, cleaned or scraped. Smear them with petroleum jelly before replacing, to reduce future corrosion. If the battery is low, it should be inspected and recharged as soon as possible. The distributor should next be examined. This should be clean, and free from corrosion. If a strong continuous spark is obtained at the distributor arm, the trouble must be in the plugs or high tension cables. Inspect the cables for broken insulation, and bind any cracks with insulating tape. Examine the plugs for the following faults:—

Points Incorrectly Spaced. The sparking plug points should be set whenever possible by a gauge (which can be purchased very cheaply if not supplied with the motor car kit).

Oil Saturated Insulation. Clean plug with petrol.

Magneto System. These are the main causes of misfiring and difficult starting, where high tension magneto ignition is employed.

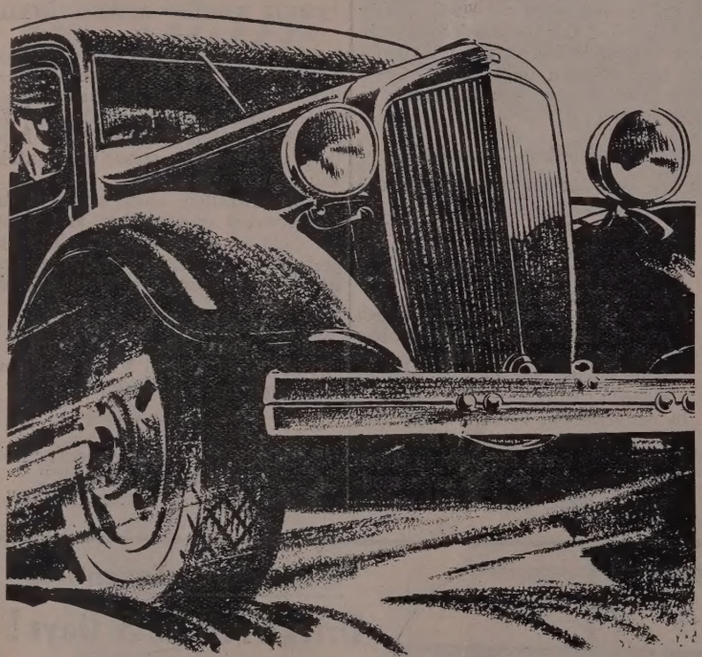
Worn Distributor Segments should be trued up by a magneto expert.

Brushes Making Poor Contact. Remove and inspect the brushes. If badly worn, they should be replaced. Clean brushes before replacing.

Carbon Deposit in Plug. Scrape out carbon and wash points in petrol.

Money-Making Features of the new range of

CHEVROLET TRUCKS



MORE POWER.
BIGGER BRAKES.
NEW PRESSURE STREAM LUBRICATION.
IMPROVED HEAVY DUTY REAR AXLE,
and many other features.

30 Cwt. Chassis Prices from

£272

Plus Sales Tax.

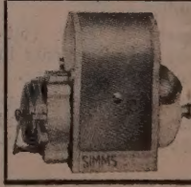
Features that have made Chevrolet outstandingly the world's most popular truck, are refined and improved in the new models for 1935. The famous Chevrolet Six-Cylinder valve-in-head engine now develops 70 brake horse-power at the low engine speed of 3,200 r.p.m. Cast iron pistons—proved successful by more than 2,000,000 owners—are retained. Improvements in the easily accessible heavy duty back axle made it sturdier than ever. The heavy duty clutch is now more powerful in final engagement, yet even lighter to operate than before. Brakes have been enlarged and are smoother, more certain in action, and more completely sealed against dirt and water.

Best feature of all is Chevrolet's low price. See the new models to-day. Compare them feature by feature, with any other truck in the market, and you will realise that Chevrolet is the World's most popular truck, solely because it offers the World's finest value.

Metropolitan Distributors:

PRESTON MOTORS PTY. LTD.

Truck Showrooms: 114 Franklin St., Melbourne



MAGNETOS
RELIABLY REPAIRED
Auto Electric Service Pty. Ltd.
31 Leicester St.
CARLTON
Tel. F 2064

Increasing Australia's Apple Consumption

Educational Publicity Projected

APPLE AND PEAR EXPORT COUNCIL ASSISTS IN FORMING ORGANISATION TO INCREASE LOCAL SALES.

FOLLOWING THE SUCCESS of the Australian Apple and Pear Export Council in organising the export of fresh fruit, it was deemed necessary by delegates to lay the foundation for an organisation to increase the consumption of Apples within Australia.

As a first step, organisations are being created in the several States to consider an Apple publicity campaign.

The matter of finance is receiving the necessary consideration. In the meantime the following has been adopted as a method by which the objective could be achieved.

:: :: ::

WHATEVER BASIS OF FINANCE is eventually adopted, funds will obviously be limited, even apart from this economy should be sought without preventing effectiveness.

The industry has, within itself, excellent means of getting publicity matter before the public. Growers can be asked to seek literature to pass to friends. Almost all the urban public come into contact with fruit retailers, and retailers' co-operation should be most valuable. An approach might well be made for retailers official bodies to co-operate directly. The purpose and methods of the proposals can be explained to individual retailers and their interest and enthusiasm stimulated.

The daily press has usually responded generously to efforts of this type and made available space for specially written matter, both in general and in women's columns.

The Australian Broadcasting Commission has frequently made broadcasting facilities available and would doubtless do so in this connection.

Since a sustained campaign is necessary, "stunts" such as "Apple Week" are preferably avoided. It would be better to seek publication facilities from newspapers for one or two days per week in respect of this subject, and to secure a similar allocation of broadcasting programmes; the country press should not be overlooked.

Competitive newspapers will not usually accept identical articles; such should therefore be paraphrased or the same subject written independently. In the latter regard interstate exchange of matter would be very valuable although co-relation is obviously essential to avoid possible conflict of ideas.

The type of articles for general circulation or for publication can cover a very wide field. A few aspects which suggest themselves are:—

Health: Medical and dental.

Educational: Identification and description of varieties and their characteristics. Culinary and dessert values.

Economic: The sphere of the industry (both local and export) and of its dependent trades.

General Interest: History—locality—Circumstances of production and of marketing.

General: Purity (protective covering)—Attractiveness—Value (retail price contrasted with other foods).

Controversial: Methods of sale (e.g., unit and weights).

Recipes can form a most useful form of publicity. A collection of at least 100 is easily obtained, and can be published both in booklet form and through newspapers and broadcasting stations. In booklet form the cost can be largely, if not fully covered, by advertisers of associated products, e.g., flour, butter, milk, ice cream, etc. (Some publishers will themselves arrange the advertising.) Newspapers and broadcasting stations will doubtless draw attention to the availability of recipe books in response to applications accompanied by a stamp for postage. Copies could well be posted direct to residential hotels, boarding houses, restaurants, steamships, etc., and also to the cooks and chefs of such institutions. Further attention could be secured by competitions for further recipes.

The assistance of Education Departments will provide a splendid means of driving propaganda into the home and of extending Apple consumption amongst children.

The help of womens' organisations can be very valuable indeed, and subcommittees of such to act in direct co-operation on the conduct of the scheme would assist tremendously.

Press interviews with public men and women make an excellent prologue to any such campaign.

Poster advertising is expensive, and should be entertained only as an extra avenue of assistance, if practicable without impairing other avenues of activity. The appeal to the eye is constantly provided by first-class fruit displays and the simple association of slogans with such will probably be almost as effective. A slogan competition is well worthy of consideration.

It seems most probable that far more can be achieved by the appeal to the mind than to the eye.

Many other methods will occur to those interested, but this broad outline is put forward as a basis for discussion.

Such proposals as are enumerated herein are not costly—indeed there is a good deal to be said for eliminating any paid advertising on the grounds that any such calls for its extension to channels which otherwise may be available at little or no cost.

The essentials for success are capable, energetic and enthusiastic committees, and above all, an efficient organiser or organisers.

In a matter of this sort the organiser's work is a very full time job for a capable man; money spent in that direction will do more than any other factor to secure success. At the same time the fullest assistance of existing organisations, and particularly of marketing men who are in touch with city conditions and who can meet regularly should be sought. Real assistance in organisation would be a most valuable aid for the marketing section of the industry to offer.

Interior of Packing House of Clements & Marshall Pty. Ltd., Mersey Valley, Tasmania.

APPLE AND PEAR EXPORT.

Australia and New Zealand Reach Agreement.

Confirmation Awaited from N.Z.

AN IMPORTANT CONFERENCE was held at Sydney at the end of November, when delegates from the New Zealand Fruit Export Control Board met the Executive of the Australian Apple and Pear Export Council and arrived at a decision regarding the joint quantity of Apples which should be shipped from the two countries during the months of March, April, May and June.

Mr. J. B. Mills presided and there were also present (from Australia): Messrs. G. W. Brown (Vic.), C. O. Smith, J. H. Astell, E. Ross, J. P. Piggott and A. J. Honey (Tasmania), H. W. Soothill (W.A.), J. W. Blick, and E. E. Herrod (N.S.W.), P. S. Chinn (Queensland), and R. E. Boardman (Secretary).

From New Zealand: Messrs. H. E. Stephens (Chairman N.Z. Fruit Export Control Board), R. Paynter, W. Benzies (Secretary to Control Board, and J. A. Campbell (Director of Horticulture).

After full discussion a tentative agreement was arrived at regarding quantities for export, this to await confirmation until the N.Z. delegates had returned to the Dominion to consult others interested.

Export Varieties.

Mr. Paynter said that the varieties Kidd's Orange Red and Desert Gold were being tried out as both had possibilities in regard to export.

Several other varieties, of which only small quantities were exported last season, were being eliminated, these included:

Ballarat or Stewart's?

The variety known as Stewart's Seedling in Australia, is identical with the variety Ballarat, in New Zealand.

It was decided, after discussion, to recommend that this variety be known as Ballarat.

Appreciation was expressed by New Zealand and Australian delegates for the capable chairmanship of Mr. J. B. Mills.

APPLES AND PEARS.

Uniform Grading Desired by States for Australian Marketing.

Appreciated Activity of Fruitgrowers' Federation of N.S.W.

THE NEED FOR UNIFORM interstate Apple and Pear grading regulations has been freely expressed for some time past.

Following the Interstate Conference at Hobart in November, when emphasis was laid on this feature, the Fruitgrowers' Federation of N.S.W. promptly took action and has circulated to growers in N.S.W. a draft of suggested regulations for Apples and Pears for the Australian market which have been submitted by the N.S.W. Dept. of Agriculture.

It is suggested that the two first grades of Apples, "Extra Fancy" and "Fancy," should be based upon the export regulations, leaving out the color requirements, with the exception that in the "Extra Fancy" grade the term "good color" of the variety should be inserted.

In the "Fancy" grade the term "free from disease" has been struck out and also that the words "the total number of blemished Apples in any case does not exceed 10 per centum of the total number of Apples in the case." This will allow the whole of the Apples in the case to be blemished up to an area contained in a circle having a diameter of quarter of an inch. This blemish may be considered to be somewhat excessive, but it is left open for discussion.

The third grade for the local market is suggested to be based on the present "Plain" grade in the State regulations, and the designation be altered to the term "Good," and the area of blemish being raised from quarter of an inch to half an inch. This increase in blemish is again debatable, and opinions are invited.

The fourth grade, "Factory" is left as in the present State Grading Regulations.

Another point which will have to be settled is the size of the Apples to be permitted in the various grades.

Gerrard Sales and Service
The Gerrard Fruit Packing Charts for Apples, Pears, Citrus are available, post free, on application.
Write: GERRARD WIRE TYING MACHINES CO. PTY. LTD.
18-24 Ireland St., West Melbourne, C.3
SYDNEY BRISBANE ADELAIDE PERTH TOWNSVILLE HOBART
GERRARD The Tie That Binds

In the present N.S.W. State regulations for the two top grades, the Apples are not allowed to be less than 2¾ in. in diameter, and that for the third grade of not less than 2 in.

Further opinion is invited on this matter as in the Export Regulations certain of the Apples in the dessert classes are allowed 2in. and some of them are allowed as low as 2⅜in.

The Pear grades it is suggested should remain as specified in the Export Regulations, viz., "Extra Fancy," "Fancy" and "Good," and that the sizes of Pears in the "Extra Fancy" and "Fancy" should be 2½in., and that in the "Good" grade 1⅞in. "Factory" grade to be the same as the State Regulations.

Field Day at Berri, S.A.

CINCTURING AND MANURIAL TESTS WITH ORANGES AND VINES.

(By Our Special Correspondent.)

RENMARK, 27/11/35.

MANY YEARS AGO the authorities of the Berri Experimental Orchard inaugurated a field visiting day to enable growers living at some distance to get particulars of the year's operations, and results of experiments. This visiting day has become more and more popular as the results of experiments have become more widely known. This year, the visiting day took place on Tuesday, November 7, and although the temperature registered about 107 deg. in the shade, there was an attendance of over 100 growers from all parts of the River Areas. The manager of the Experimental Orchard, Mr. N. Fotheringham, supplied each visitor with a copy of the year's operations regarding bearing results of various types of vines. Cincturing tests on Orange trees. Manurial tests on vines of drying varieties. Results of drying varieties of vines under varying training methods. Cincturing tests of Currants and Sultanas. Fertiliser trials on Orange trees. Stock trials on Orange trees. The manurial trials on vines other than drying varieties were as follow:—

Experiments of 15 years.

	1935 Season, lbs.	Baume.	Average per year. lbs.	Baume.
Alicante, Black	15,409.35	12	13,418	11.42
Avamon	12,777.60	14	8,641	13.17
Belas Blanco	11,634.15	14	7,780	12.91
Doradillo	22,887.15	12.5	13,569	12.15
Palimeno Blanco	3,448.50	15	6,202	12.94
Pedro Ximines	15,990.15	13	8,301	12.12
Pride of Australia	5,390.55	22	5,770	16.0
Santa Paula	9,111.30	13	7,555	12.50
Sweetwater	7,151.10	13.5	7,786	13.15
Temperano	11,380.05	15	10,228	13.32
Trebbianio	1,923.90	14	11,869	13.79
Ulliade	14,610.75	13.5	10,941	14.43

These tests were inaugurated to test out several heavy bearing at the time when Doradillos were grown as the heaviest bearing variety and used exclusively for the manufacture of spirit for wine fortifying purposes, but since the depression in spirit prices, lack of interest has been shown in these varieties. The Doradillo, however, has held pride of place as the heaviest bearing wine, followed closely by Alicante Black, and as the test has been in progress for 15 years we must accept them as fairly conclusive.

Although the manuring of drying varieties of vines has been in progress for a number of years, no conclusive evidence can be arrived at owing to many contradictions which exists. Furthermore, Mr. Fotheringham pointed out that the manurial trials had been laid out on a piece of ground which was formerly a lucerne patch, and the influence of this is still in evidence.

One outstanding piece of evidence is of interest, and that is the fact that where the lucerne grew vigorously, the vines bore heavily, and in windswept areas where the lucerne only grew in stunted tufts, poor results were harvested from vines also.

The cincturing of Orange trees was commenced eleven years ago, and tests were made at different times, and the best average results were obtained over the eleven years, when trees were cinctured when fruit was 3/16 in. diameter, followed by cincturing when half to two-third blossom has fallen. The cincturing of Oranges, however, has to be done with a great deal of caution owing to the fact that in some cases trees were weakened to such an extent that for several years this practice had to be abandoned to allow the trees to recover.

The

most consistent results

obtained from Orange trees in the manurial trials over the past six years is the application of 560 lbs. superphosphate and 12 tons stable manure, followed by 1,008 lbs. super and 112 sulphate of ammonia, then comes third place, 1,344 lbs. super and 5 cwt. sulphate ammonia. A marked falling off in returns takes place in every case when no nitrogenous manures is applied, whether in the form of nitrogen from organic, or artificial nitrogen.

During the afternoon, visitors were taken through the orchard by Mr. Fotheringham, and all experiments explained and questions answered.

A good deal of the benefit of the day was derived from address by Mr. A. G. Strickland, Chief Horticultural Instructor in the Dept. of Agriculture, on "The Control of Codlin Moth" and "A Review of the 1935 Orange Export Season."—"Nemo."

Mr. G. A. Callett has been appointed by the Minister for Agriculture to represent this State on the Federal Potato Advisory Council, whilst Mr. Hemming, of Kalangadoo, will represent the South Eastern Potato Association.

HEAVY N.Z. APPLE CROP.

Reports from New Zealand state that the Apple crop is shaping to be one of the heaviest on record.

Delegates and visitors to the recent conference of the Apple and Pear Council at the factory of the Tasmanian Standard Case Co. Pty. Ltd., Huonville, Tas.

FRUIT CROPS IN N.S.W.

Interesting information regarding fruit crops in the South and South Western portions of N.S.W. (including the Murrumbidgee Irrigation Area) are to hand by courtesy of Mr. P. S. Macdermott.

Apples: Orchards in the Penrose district have not recovered from the severe damage caused by hail last season, and crops generally are light.

While there are some good individual crops in the Tallong, Marulan and Goulburn districts, taking the districts as a whole, there will not be as much fruit as last season.

Estimates in the Young district also place the crop at about 75 per cent. on last season, while in the Albury district the crop is about 60 per cent. of normal.

On the Murrumbidgee Irrigation Area, Granny Smiths shed very heavily and instead of the good crop anticipated it is now definite that the crop will not be as good as last year, and possibly not more than 60 per cent. of the quantity exported in 1935 will be sent away this season. The fruit is of course larger owing to the lighter crop and is more forward than in 1935.

Red varieties right throughout the Murrumbidgee Irrigation Area have failed this season, and the crop will be negligible. Cleopatra have set better than any other variety, but of course the quantity grown is not very large, and most of the fruit is sent to the Sydney market and sold as early cookers.

Reports from Batlow and the Western districts are that crops are light, between 60 per cent. and 70 per cent. of normal.

Pears: There is a fair showing of Pears in every district, and speaking generally, the Pear crop is better than last season.

Murrumbidgee Irrigation Area.

Prospects at Griffith, Leeton and Yenda, are definitely bright, and the writer has never seen these areas looking better. While the Apple crop is certainly light there is a fine show of Peaches and Apricots, and the size of the Apricot is rather surprising in view of the heavy crop. Wine Grapes, while not heavy, are showing well, and after last years' disastrous frost, growers deserve a better deal this year. Ohanez Grapes are also promising well, but Cornichons are definitely light.

There is a nice setting of citrus fruit, and if the December drop is not too heavy, there should be plenty of fruit for next season.

Almonds and Prunes are a little patchy, but crops on the whole are fair.

As in other districts there is a nice showing of Pears.

With the canning position so healthy, prospects are indeed quite favorable for the coming season.

The cannery at Leeton has now been taken over by the growers, and it is hoped that normal weather conditions will prevail for their first season.

No. 9 Spraying Machine

The Most Extensive Manufacturers in the British Empire of

RUBBER STAMPS

Stencils, Marking Devices, Inks & Acme Stamp Pads.

We make a Big Range of Special

Fruit Case Marking Sets

We also Manufacture and Supply

Spraying Machines

for All Purposes.

Let us know your requirements, and we will quote you. Ask for Spraying Equipment Price List

EXCELSIOR SUPPLY CO. LTD.

160 George St. West, SYDNEY, N.S.W.

278 Post Office Place, MELBOURNE, VIC.

"Esco House," 50-52 Victoria St., WELLINGTON, N.Z.

ORCHARD FERTILISERS

Recommendations of Conference

THE 1935 North-west Fertiliser Conference, representing the fruit-growing industry in the American States of Washington, Oregon, Montana, Idaho, as well as in British Columbia, convened in July last and certain recommendations made by the conference are worthy of notice by Australian growers since, in the main, they are applicable to conditions in this country, with allowance for seasonal differences.

The recommendations are based upon responses observed during the past six years on experimental plots in the States named. The main deductions made from the experiments are taken from "Better Fruit" (U.S.A.), October, 1935.

Mr. F. M. Read, M.Ag.Sc., Chief Inspector of Horticulture, Victoria, has perused the following recommendations, and states they are in general accord with experiments in Victoria.

Maturity.

In firmness of flesh, as measured by pressure, there has been no significant difference with fruits of the same size and color in any one season from harvest time to after three months' storage at 32 degrees, as a result of fertiliser treatment, with uniform samples of comparable size, color and maturity, other environmental conditions exerted greater influence upon firmness than did fertiliser treatment.

Fertiliser application, however, may affect size, percentage of red color and time of maturity. In States where deficient phosphorus in the soil is reported, phosphorus fertiliser has affected firmer Apples. Pressure tests should be supplemented by ground color, flesh color and solids determination and the same individual should make all these tests during the season.

Jonathan Breakdown.

Large fruit is more subject than smaller fruit, and trees having large leaf area are more susceptible than those having limited leaf area per fruit. Thus, as fertiliser application may increase both size and leaf, susceptibility may be increased.

Undue delay in harvesting after maturity is reached increases susceptibility in storage to Jonathan breakdown.

Soft Scald.

Factors other than fertiliser application are primarily responsible for soft scald, such as delayed harvesting, improper stages of maturity, delay in storage and too low temperatures, favor soft scald.

Fruit Bud Injury.

Fertilisers had no measurable direct influence upon winter injury to buds, except that better vigor of the tree may allow it to withstand adverse conditions better than weak trees.

Early maturity of the wood, desirable with McIntosh Apples, is assisted by phosphorus fertiliser application, but trees receiving only nitrogen are the last to show maturity.

Summer Drop.

Unfavorable environmental factors such as inadequate soil moisture, winter injury, cultural practices, and insect attacks, have a greater combined influences upon summer drop than do fertilisers.

With Jonathan, Winesap, and McIntosh nitrogen alone or in combination, or phosphorus and potassium together, without nitrogen, has tended to lessen the percentage of June drop as compared with no fertiliser application. But where either potassium or phosphorus is used alone, the June drop has been consistently greater than that of unfertilised plots.

Set of Fruit.

Nitrogen alone, or in combination with phosphorus or potassium, has increased the set of fruit in comparison with unfertilised plots, or with plots in which these alone have been applied. The combination of nitrogen and phosphorus tends to give a larger set than any other fertiliser application employed in the studies made. In McIntosh districts, where phosphorus has been applied, there is less tendency towards dropping of fruit prior to or during harvest.

Thinning.

The harvested crop cannot alone be taken as a measure of the yield in response to fertilising. With trees having a heavy set, more fruit is thinned than with trees having a light set, so the ultimate crop matured may be similar in amount.

Thinnings from trees receiving nitrogen alone or in combination have been greater than thinnings from trees upon soils where nitrogen was deficient. Phosphorus and potassium together, without nitrogen, have not increased the number of thinned fruits, as compared with check trees, but the application of phosphorus or potassium alone has decreased thinned fruits, as compared with check trees.

Yield Per Tree.

The total yield is influenced by climate, cultural practices, size of trees, and soil type. Nevertheless, where nitrogen has been a limiting factor, the addition of nitrogen either alone or in combination with either phosphorus or potassium, or both, has resulted in increased yields. With certain soils phosphorus when applied in combination with nitrogen has improved yields.

Size of Fruit.

Size of fruit is influenced by tree load, leaf area available, and moisture relationships, in addition to the effect of the fertilisers. It does not, therefore, necessarily follow that fertilisers may result in size increase of fruit if at the same time tree load is increased. Observations, however, indicate that nitrogen alone or in combination tends to maintain size of fruit notwithstanding an increased tree load as compared with the unfertilised plot. As compared with fertilisation with either phosphorus or potassium alone, or together, or no fertiliser, nitrogen either alone or in combination tends to increase the average size of individual fruits. Continued application of phosphorus or potassium alone has tended to decrease size of Apples.

Color of Fruit.

Unless it is seriously deficient, nitrogen, either alone or in combination, tends to oppose maximum color development. Certain other factors that may influence intensity and amount of red color development are: Unfavorable growing conditions, excessively high summer temperatures, reduced sunlight through haze or cloudy weather, crowded condition of trees, insufficient or excessive pruning, inadequate irrigation, excessively vigorous vegetative growth, attacks of leaf-injuring insects, ratio of leaf area per fruit, and insufficient maturity before harvest. Under some conditions, larger sized fruit and increased total tree yield may offset possible lowered return from lessened color development.

With continuous applications of potassium or phosphorus, singly or together without nitrogen, the color of Apples may be better than when nitrogen is applied, apparently because of the greater intensity of sunlight striking the fruit resulting from the marked decrease in foliage on trees so fertilised. The decrease in yield and reduction in tree vigor, however, do not warrant their use unless the soil is deficient in either element.

Six years' data obtained with McIntosh Apples indicate that when the vigor of trees has been increased either by the application of nitrogenous fertilisers or other means, the color has been maintained on a par with the check by the application of phosphorus along with the other operations.

Grade of Fruit.

Trees receiving no fertilisers or no nitrogen tend to produce a lower percentage of "C" grade fruits and a high percentage of extra fancy fruit, as determined by color, than are produced by trees receiving nitrogen alone or in combination, however, where nitrogen and phosphorus are deficient the application of nitrogen and phosphorus gives a size and color of McIntosh more acceptable than no fertilisers or other fertiliser combinations.

Length of Terminal Growth.

When fertilisers containing nitrogen are applied, either as nitrogen alone or in combination with phosphorus or potassium or both, the average terminal growth made is greater than that made by the check trees. Nitrogen applied alone tends to result in slightly greater terminal growth than when applied in combination with phosphorus or potassium. Phosphorus and potassium when either was applied alone resulted in less average terminal growth than that made by the check trees.

Upon the basis of experience in Jonathan and McIntosh orchards, it appears that in order to maintain adequate production of good size and well-colored fruits from seven to nine inches of annual growth should be made.

The data show a definite correlation between the length and diameter of the annual terminal growth, the longer the terminal growth the greater the diameter. There was no definite consistent significance that could be attached to the influence of

PAKENHAM (VIC.) FIELD DAY.

Messrs. J. G. Aird, T. F. Black, J. J. Ahern and Alex. Ramage examining a tree that has been worked over to a more popular selling variety by the modern method of plug-grafting.

(Illustration from "The Leader.")

FRUIT BUYERS

LEMONS, ORANGES, GRAPEFRUIT, PEARS, PEACHES, APRICOTS, BERRIES, CHERRIES.

—o—

BROOKE'S LEMOS LTD.

69-79 WHITEMAN STREET, MELBOURNE SOUTH, S.C.5.

— Telephone, M 3141. —

Fruit TreeS
Fruit TreeS
Fruit TreeS

Best Obtainable — Catalogue Free.

Quality first and all the time.
Book Now for Delivery June-July.
Orders reserved.

John Brunning and Sons

Somerville Nurseries,

Somerville, Victoria Australia.

Orchards & Nurseries 208 Acres.
Private Cool Stores, 17,500 Case Capacity.
— Established 1866 —
Phones:
Somerville 221 - - After hours 252

Gerrard Sales and Service

A penny spent on Gerrard (wire-seal strapping) goes a long way in safe transport.

GERRARD WIRE TYING MACHINES CO. PTY. LTD.

MELBOURNE — SYDNEY — BRISBANE — TOWNSVILLE
PERTH — ADELAIDE — HOBART

GERRARD
The Tie That Binds

the fertilisers upon the relation of the diameter and length of the terminal growth.

Diameter of Terminal Growth.

The data indicate that Jonathan and Winesap trees receiving nitrogen, either alone or in combination with either phosphorus or potassium, or both, produced terminal growth with slightly greater average diameter than did the check trees. With phosphorus alone or potassium alone or the two elements together, the diameter increase as compared with the check was not significantly consistent or marked.

Tree Trunk Circumference.

For orchards of low vigor the data show that where nitrogen is deficient the average annual increase in trunk circumference of Apple trees is greater where nitrogen is applied than that of the check trees. The addition of either phosphorus or potassium alone or together with nitrogen gives no marked increase over nitrogen alone. The application of phosphorus and potassium alone or together does not benefit increase in trunk circumference.

Water Requirements.

General observations indicate that the use of nitrogenous fertilisers increases the tree's demand for water because of the greater leaf area. Often the cover crop growth may be so great from the application of fertilisers that the requirements for water in the orchard may be much increased.

Recommendations.

In the fertiliser programme, nitrogen is likely to be the first limiting factor with fruit trees on certain irrigated soils. Under average ordinary conditions sufficient nitrogen may be supplied by several means:

a. Barnyard manure if available can be employed annually at the rate of five to eight tons or its equivalent in leguminous hay (one to two tons) per acre. They should preferably be applied from late fall to early spring.

b. Cover crops.

Fertliser requirements can be reduced to a minimum by the judicious use of leguminous cover crops combined with good orchard management. A good cover crop cannot be maintained if any element is deficient. The continnous maintenance of a good legume cover crop not only improves the fertility of the soil but also improves the physical conditions of the soil, and aids in water penetration.

Lucerne is a satisfactory permanent cover crop. Vetch, an annual, sweet clover, a biennial crop, may be used. Self seeding of the latter will often maintain a continuous crop. There is a large amount of variation in both biennial yellow and biennial white sweet clover. A low growing type is desirable. In non-irrigated sections vetch is used extensively as a cover crop. Inoculation of seed is recommended where vetch has not been used for some time and on new land.

Cover crops should be seeded in the spring as soon as danger of killing frost is past. Full seeding may be desirable in some sections where water is a factor. A well prepared, firm seed bed is essential. The distance between furrows should be sufficiently close to maintain soil moisture. Eighteen inches is not too close. Surface soil moisture must be maintained until the cover crops are established, or have attained a height of ten to twelve inches. Weed growth in new seeding can be controlled by clipping. Deep cultivation of the cover crops should be avoided.

Cables—Monro, London Codes—A.B.C. 5th Edition and Bentley's

GEO. MONRO Ltd.

The Most Important Fruit-Distributing Organisation in the World.

COVENT GARDEN MARKET, LONDON, and SMITHFIELD MARKET, MANCHESTER

Other Branches: BIRMINGHAM, GLASGOW, WORTHING, SPALDING and HULL

Sales on Commission, by Private Treaty only.

Over sixty years' of Fruit Distribution.

We do not purchase.

Our Sale Rooms are the largest and most up-to-date in England; consignments are therefore displayed to the best advantage, consequently, our returns are the best.

We have specialised in the Sale of Australian Apples and Pears by expert salesmen for many years past, and we have the largest and best customers in Great Britain amongst our clients.

Bigger and better business is our objective.

We make advances to cover cost of freight, etc.

(Established 1862)

DIRECTORS:

Major Edwin G. Monro, O.B.E. (Chairman), Geo. Monro, C.B.E., Bert J. Monro, Captain J. Stuart Monro, Alex. J. Monro, and C. Cole.

Chief Agent in Aust.—Major H. Dakin, V.D., Goldsbrough House, Macquarie Place, Sydney, N.S.W.

Victorian Representative	Esmond Russell Pty. Ltd., 395 Collins St., Melbourne.
Southern Tasmanian Representative	W. H. Ikin & Son, Dunn Street, Hobart.
Northern Tasmanian Representative	Bell & Gerrard, No. 200 Cimitiere St., Launceston.
West Australian Representative . ..	The Westralian Farmers Ltd., Perth.

HISTORIC APPLE TREE.

English Seedling in Canada — Aged 108 Years — Still Bears Fruit.

An Apple tree with an honored history—which still bears fruit at the age of 108—is one growing in Canada from an English seed.

Its life story, from pip to prominence, was related to a "Reynolds'" representative by an official of the Canadian Government in London.

"There was a farewell dinner in London, in 1826," said the official, "to Captain Simpson and other officers of the Hudson's Bay Company, who were about to set sail for Vancouver.

"One of the women guests cut an Apple and dropped the seed into Captain Simpson's pocket. 'Plant them when you get there,' she said, 'They may grow.'

"The seeds were duly planted at Fort Vancouver, and a sturdy tree developed which yielded good crops of fruit.

"In 1843 after boundary adjustments, the Company moved to what is now Fort Victoria. Treaties fixed the boundaries, and the tree, which did not move with the rest of the equipment, was left in the American State of Washington, where it remains to this day.

"But delicious English Apples are still being gathered from the gallant old exile."

AUSTRALIAN DRIED FRUITS.

Satisfactory Sales in U.K.

The Commonwealth Dried Fruits Export Council Board advise that 381 tons of Australian dried fruits were sold in Great Britain during the week ending November 28. The statistical position in regard to the disposal of the 1935 season's crop shows an interesting comparison with the previous year.

The total shipments to Great Britain to date amount to 30,373 tons, shipments being practically completed for this season. The quantities shipped include 16,807 tons Sultanas; 13,220 tons Currants; and 346 tons Lexias; the quantity remaining unsold, 3,906 tons only, representing shipments in store in Great Britain or afloat and made up of 1,018 tons Sultanas, 2,856 tons Currants and 32 tons Lexias.

The figures for the corresponding period of last year show shipments, 34,386 tons, the quantity unsold being 13,328 tons.

In no previous season has the realisation of the crop been so far advanced.

Prospects for the current season continue favorable, but there is every prospect that the new crop will arrive in Great Britain to an absolutely clear market.

The average prices of fruit sold during the week were: Sultanas £41/12/11 and Currants £27/16/6 per ton. The shipments to New Zealand for 1935 season total 3,611 tons and to Canada 14,478 tons.

The total quantity exported to all markets is 49,266 tons, the quantity unsold being that limited quantity remaining in Great Britain, namely, 3,906 tons.

Swimming Instructor: "I'm sorry, madam, but you will never learn to swim unless you keep your mouth shut."

Pupil (indignantly) "What impertinence! Just remember, I don't pay you five shillings an hour to be spoken to in that manner!"

Canned Fruits Control Board

NINTH ANNUAL REPORT

Satisfactory Progress.

A STUDY of the ninth annual report of the operations of the Canned Fruits Control Board for the year ended June 30, 1935, reveals that the canning industry in Australia is in a particularly sound position at the moment.

The record volume of sales recorded overseas during 1934, together with a much increased local demand, enabled almost an entire clearance of stocks by the end of the year and a consequent negligible carry-over into 1935. Supplemented by the early reports that the Canadian pack would be below normal, some advance in demand for Australian supplies was anticipated. These factors, and an unprecedented volume of business in the United Kingdom in the first few weeks following the offering of the new season's pack in Great Britain, led to keen competition by canners for fresh fruit supplies.

Large 1935 Pack.

The 1935 pack in canned Apricots, Peaches and Pears was equivalent to 1,925,599 cases, an increase of 498,042 cases over 1934, and was only exceeded in one season when, in 1933, the quantity produced was 2,036,679 cases.

The 1935 pack took care of all available fruit of suitable canning quality, and would have been even larger except for partial losses sustained, mainly in Victoria, through hail, wind and a revisitation of the Oriental Peach moth in the Goulburn Valley areas. This latter, unfortunately, upset processors' calculations and forced them to decline orders which would otherwise have been filled.

Red Centre Peaches.

Again the report calls the attention of growers to the wisdom of providing for the preference of the British market for clear-centred Peaches. It points out that American packers are supplying this variety, and are therefore enjoying an advantage which Australian canners should be enabled to equal, and states that until Australia can give Britain this preferred type in much greater volume than at present it will be difficult to secure market returns for red-centres on a par with the Californian article. The report urges the necessity for growers providing for this feature in any replacements or extensions of plantings contemplated.

Exports.

The full figures for 1934 show that exports in canned Apricots, Peaches and Pears raised total exports well above any previous year, whilst the exports for the first six months of 1935 were well up to expectations. Taking the figures as representing cases of 2 dozen 30-oz. tins or equivalent, the following table shows the average exports for five years, 1928 to 1932, the actual for 1933 and 1934 and for the first six months of 1935—

Destination.	Average 5 Years.	1933.	1934.	Six Months, 1935.
United Kingdom .	486,614	658,616	1,211,474	805,666
New Zealand	79,927	22,543	50,126	20,076
Canada	117,431	19,803	45,159	47,886
The East	11,459	21,847	18,232	8,944
Miscellaneous . . .	3,820	3,251	3,023	636
	699,251	726,060	1,328,014	883,208

1934 Season.

An increase of nearly 100 per cent. in sales over the previous highest sales recorded in 1930, marks 1934 as the high point of the development of trade in Australian canned fruits to date. The sales reported were above the quantity actually shipped during the year, and absorbed a quantity of unsold stocks on hand in the United Kingdom at the close of 1933.

The introduction of revised marketing arrangements in 1934 proved mutually beneficial, and augmented the list of prospective buyers in Great Britain, and the greater stability of exchange contributed to the successful disposal of the heavy 1934 pack.

1935 Season.

This present year opened up with prospects of only a small carry-over from 1934 and the promise of a keen demand with relatively high prices. A factor in this expectation was that, for the first time on record, distributors in Great Britain curtailed their purchases of U.S.A. canned fruits pending an announcement of Australia's new season prices, and the demand for U.S.A. fruit eased correspondingly.

C.I.F. Prices.

When the board announced its 1935 opening prices on January 21 they were found to be an appreciable advance upon those of the previous year, and the announcement was followed by a deluge of orders, which covered the whole of the anticipated volume of one million cases. The prices announced were on the basis of per dozen tins, c.i.f. at United Kingdom ports, in English currency, and were:—

Apricots.

	30-oz.	16-oz.
Choice	7/9	5/-
Standard	7/-	4/6
Seconds	6/7½	—

Peaches.

	30-oz.	16-oz.
Choice	7/6	4/9
Standard	6/9	4/4½
Seconds	6/4½	—

Pears.

	30-oz.	16-oz.
Choice	8/3	5/6
Standard	7/6	5/-
Seconds	7/1½	—

Buyers' Interest Growing.

A pleasing feature of the 1934 season was that the expansion of trade included many wholesale and retail merchants, who had previously shown little interest in Australian canned fruits, exhibiting a more or less keen interest. Their activity and the support of an active publicity campaign gave a great stimulus to the demand.

Australian Consumption.

The heavy disposals on the British and other overseas markets early in the current year gave much-needed stability to the Australian domestic market, which had shown a heartening increase in 1934, 853,928 cases having been moved into first hands, compared with 634,374 cases in 1933, 443,998 cases in 1932, and 624,115 cases in 1931. This welcome development of local trade was largely attributable to attractive prices to both distributor and consumer.

Other British Markets.

As emphasising the fact that, although London is admittedly the greatest market for Australian canned fruits, other ports are receiving large quotas each year, and, moreover, their acceptances are consistently rising, the report proves that ports, other than London, received in 1934 approximately 33 per cent. of Australia's exports of canned fruits. Of this quantity, Liverpool, Hull, Glasgow, Avonmouth, Southampton, Newcastle and Manchester received the largest shipments in that order, and the progress made in provincial centres is therefore most gratifying.

New Zealand.

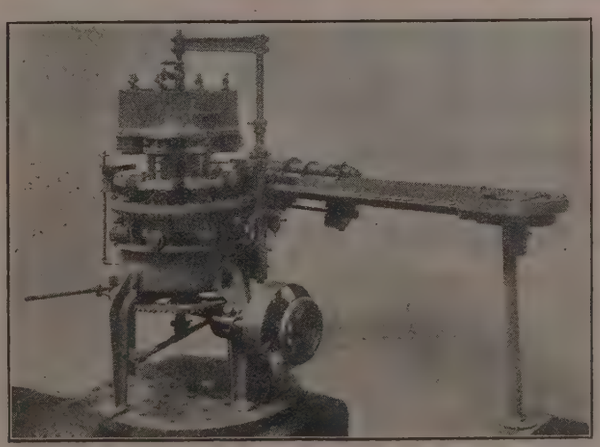
The report shows that during 1934 50,126 cases were shipped to the Dominion, an increase of 7,060 cases over 1933, although this is partially explained by the partial failure of crops in New Zealand in that year. Although up to date, virtually all of her requirements of canned fruits have been drawn from Australia, New Zealand is slowly attempting to meet her needs by local processing, and,

WOOD WOOL
Finest Grade for Export Fruit.
STRAWBERRY BOXES.
and Fruit Containers.
Prices and Particulars on Application to
AUSTRALIAN BERRY BASKETS CO.
175 Kent Street, Richmond, Vic.
Tel. J1263.

The Austral Otis Andebar Cannery Equipment Pty. Ltd.

CANNERY ENGINEERS **South Melbourne, Vic.**

PHONE: M 1257
Box 3, P.O., Sth. Melb.



8 VALVE ECONOMY SYRUPER

Manufactured in our Works from Drawings of

Anderson, Barngrover - - - - - San Francisco

therefore, this market will fluctuate with the development of the local industry.

Canada.

Although, because of partial reduction of Canadian output owing to damage to orchards by frost visitations, Australia had the opportunity of sending fairly large quantities of canned Peaches to Canada, she was unfortunately unable to fill the orders owing to other commitments.

Again, the Canadian market requires a special pack, and Australia's suitable mid-season varieties were not sufficient to cope with this business, and orders had to be reluctantly refused.

Since Canadian canneries are showing considerable development and can now take care of her domestic requirements, unless unfavorable seasons intervene, this loss of orders will not be seriously felt.

The East.

There was a slight decline, of 3,615 cases, in 1934 shipments to the East, as compared with 1933, though up to June, 1935, a favorable quota for this year has already been reported.

British India is to be served with a new shipping service from Australia early in 1936, and this offers an opportunity for Australian products to be more conveniently and economically supplied to the vast prospective markets on the Bay of Bengal, and should tend to develop our trade with India.

Last year India imported canned fruits from U.S.A. (26,802 cases), Malaya (40,775), United Kingdom (8,332), and Australia (10,622), which illustrates the potential market which a direct shipping service might assist Australian trade to increase.

There is no doubt, in the mind of the board, that the canned fruits industry in Australia is being conducted upon sound lines, both as to the producing, processing and marketing of fruit, and the board's best endeavours are being exercised in an attempt to maintain the consistent development which has been experienced over a succession of years.

Growers should get into touch with
Empire Produce Exports.

PITTS & LEHMAN LTD.

129 PITT STREET, SYDNEY

And take advantage of their wide connection with importing firms in England, Canada and Europe.

Representatives of—Ridley & Houlding Ltd., London; Mutual Brokers, Montreal; R. & W. Davidson Ltd., London and Glasgow; Roberts Brining & Co. Ltd., London and Glasgow; Thos. Allan & Co. Ltd., Glasgow, and W. Gosley, Hull.

Increasing Sales of Canned Fruit

Campaign Committee Active

Already Good Response

WHAT is rightly claimed to be a national work of considerable importance is being conducted by the Processed Fruits Propaganda Committee, with headquarters at Leeton, N.S.W. The Hon. Commonwealth Organiser, Mrs. Judah Green, called on us last week, and explained some of the committee's activities, and reported that the campaign has already resulted in increased sales of canned fruits in communities in which concerted action has been taken.

Mrs. Judah Green.

The propaganda conducted to date includes the interesting of Women's Clubs, Housewives' Associations, Countrywomen's Associations, and similar organisations, co-operation by leading newspapers with a fair amount of publicity for the campaign, the distribution of recipe books containing all forms of canned fruit preparation, and addresses to groups of business men and women. All activities have sought to impress upon the public the wisdom of using more canned fruit, and the assistance to Australia which an increased local consumption of this commodity would provide.

A Simple Start.

The propaganda was launched in 1933 through Country Women's Associations, reaching 300,000 Australian women. The Sugar Concession Committee, sensing the value to the fruit industry which such a campaign should create, provided for incidental campaign expenses. Its first mission was to ask women to buy two extra tins of canned fruit that year. They did. The increased sales practically wiped out the 1933 surplus of canned fruit.

Campaign Being Continued.

Remembering how fickle the mass of the public is, it has been decided to continue the campaign for increased canned fruit consumption, and plans are being made for the distribution of 250,000 recipe books. Every State will be visited. The press will be urged to assist the movement. Meetings of large groups of men and women will be addressed. Wholesale and retail merchants will be co-opted into the service of the fruit grower, the canner and the consumer. Special window displays and advertising will bring before the public the safety and ease of using canned fruit ready for the table, and in a hundred ways attempts will be made to make the public canned-fruit conscious.

The Processed Fruits Propaganda Committee, of which Mr. A. R. Townsend, O.B.E., is chairman and Mrs. Judah Green is hon. organiser, is to be commended for their efforts and congratulated upon the results which have been obtained to date. They claim that although Great Britain is our greatest market, the domestic market is the most profitable, and is possible of great development, providing that all engaged in the growing, processing or selling ends of the industry combine and co-operate in inducing the buying public to include more canned fruits in their daily menu.

With millions of pounds invested in the fruit canning industry, thousands of workers directly employed, and other thousands engaged in the growing of fruit, the campaign reviewed surely warrants the wholehearted support of everybody interested in the fruit industry who, with us, must appreciate the contribution being made by the Propaganda Committee and its enthusiastic helpers.

AUSTRALIAN CANNED FRUIT IN U.K.

Brilliant Success at Imperial Fruit Show.

At the Imperial fruit show, held in Cardiff, the Australian entries won all prizes for Pears, Peaches, Apricots and fruit salad in the Empire canned fruit competition. The results were as follows: — Shepparton Fruit Preserving Co., five firsts, six seconds, two thirds; Ardmona cannery, four firsts, four seconds, two thirds; Henry Jones Co-op. Co., two firsts, one second, one third; Goulburn cannery, four firsts, three seconds, one third; Kyabram cannery, three thirds; Australian Preserves Proprietary, one first. Henry Jones Co-op. Co. obtained 2nd prize in the canned Apples class.

The New Zealand Honey Control Board took all prizes in two classes for Dominions and Colonial honey.

CANNED FRUITS BOARD MEETING.

Standard Regulation Methods.

AN important meeting of the Canned Fruits Control Board was held on November 20, when consideration was given to uniform standard methods of processing, packing, labelling, etc., of Australian fruit for export.

The new regulations have been drafted to provide greater uniformity in all packs. By this means canners will know what is expected of them before the season starts, and the inconveniences which have at times been experienced in the past will be eliminated.

The meeting resolved itself into a conference between canners, members of the Control Board, and officers of the Department of Commerce. One of the most important decisions was that all canned fruits shall in future bear on the label "Australian" instead of the previous method of labelling second-grade as "British Empire" products, which means that the board and packers generally will stand strongly behind all Australian canned fruits which, obviously, will not only place the responsibility upon all of shipping only the best fruit possible in its respective grade, but will enhance its value as an advertising medium for Australian fruits.

The resignation of Mr. W. Ranger as representative of the Queensland Committee of Direction upon the board was accepted with regret, after he had given a report of his recent visit to Great Britain in the interests of the Australian canning industry.

KYABRAM SHOWS A PROFIT.

3,341 Tons Processed.

Closing the 1935 season with a record profit of £20,406, the Kyabram Co-operative Fruit Preserving Company is to be congratulated upon a successful year just closed. After providing for depreciation representing some £4,543, taxation £4,900 and interest £5,557 the liabilities of the company have been reduced to £73,500.

Trading conditions are reported as satisfactory for the year, with sales well maintained and a volume of 3,341 tons of fruit processed. Work on the cool store is well advanced, and it will be ready for use next season.

Ship Direct to

MANCHESTER

(VIA THE MANCHESTER SHIP CANAL)

It is reliably estimated that—

2,500 TONS OF APPLES

are consumed EACH WEEK by the population of over 10,000,000 within a radius of 50 miles of the MANCHESTER DOCKS.

What is Your Share of that Valuable Market?

Rates of freight are the same from Australia to all British Ports—rail and road transport and handling costs in England can be saved by shipping DIRECT TO MANCHESTER the centre of the largest industrial consuming area in Great Britain.

:o:

For information apply to—

Telegrams and Cables:
"Portoman," Sydney.

CAPTAIN W. J. WADE,
8 Bridge Street, SYDNEY, N.S.W.

World Trade in Canned Fruits

Australia's Contribution Growing

THE Australian pack of Apricots, Peaches and Pears for 1934 showed a decline of 600,000 cases on the previous year's record figure, but the total, 1,427,000 cases, slightly exceeded the average for the period 1929-33. The output in Canada during 1934 was 1,082,000 cases, as against 1,201,000 cases in 1933 and 1,326,000 cases in 1932.

There were no pack statistics for Malaya, but practically the whole of the output is exported, and the larger exports in 1934 indicate a substantial increase in production over that of the previous year.

In England and Wales production figures for 1934 are not available, but it was estimated to be in the vicinity of about ten million cases. During 1934, seventy-one factories were canning fruit and vegetables in England and Wales, nine factories in Scotland, and although canning is only a minor industry in Northern Ireland, progress continues to be made. The chief varieties of fruits canned in the United Kingdom are those which are not imported in large quantities, and include — Strawberries, Raspberries, Redcurrants, Blackcurrants, Loganberries, Blackberries, Gooseberries, Plums, Greengages, Damsons, Cherries, Apples, Fruit Compote and Rhubarb.

Foreign countries supply the greater part of these imports, but Empire products are steadily gaining in popularity, and show a substantial increase during recent years. This position is clearly indicated from the fact that during the years 1919-23 the Empire share of the total imports averaged 27 per cent., and during the five years 1929-33 it had reached 35 per cent. A large volume of the import trade consists of canned Pineapples from Malaya, and it is significant from Australia's point of view that the most rapid rise in imports has taken place in supplies from that country, which during 1934 amounted to 25,000 tons, as compared with the previous highest total of 15,000 tons in 1933; imports from Canada also reached a new high level. As a result of these increases the quantity of canned fruits from Empire sources during 1934 rose to 44 per cent. of the total imports, the highest proportion ever reached.

Peaches, Pears and Pineapples still comprise the bulk of the imports, and although imports of these fruits continue to expand there is a steady increase in the trade in fruit salad, Grapefruit and canned Oranges, but the popularity of Apricots is definitely showing a decline.

The Pacific Coast States of U.S.A. are regarded as the most important producing areas for canned fruit in the world, the output in 1934 being approximately 20¾ million cases.

The United States is easily the largest consumer of canned fruits preserved in syrup, but the United Kingdom is the world's largest market for imported supplies; the average import figure of 143,000 tons for the period 1929-33 was nearly double the average in the five years 1919-1923, and almost six times as great as average imports in the years prior to 1914. The record level of 173,000 tons was reached during 1934, as against 151,000 tons in 1933 and 160,000 tons during 1932, the previous highest year.

The London Market

(Report from L. Bruce Purton, Our Special Correspondent.)

MR. W. B. COOPER, Secretary of the London agency of the Australian Canned Fruits Board, has informed me that so far this year over a million cases of Australian canned fruits have been placed on the British market—this includes all varieties. From reports to hand, it is expected that the new pack will result in over two million cases being absorbed by this market.

It is all a matter of quality and price. If these factors are right there is no need to worry about a saturation point.

Mr. Cooper says that the fruit this season has been quite up to standard, but that more attention is needed to the variety of Peaches that are packed. The trade here prefers the clear-centred variety of Peach, such as those coming from California, rather than the red-centred Pullars clings, so commonly grown in Australia. Although the red-centres are good croppers, I am assured that £1 a ton more could be got for the clear-centred varieties.

Canned Pears.

Australian canned Pears have been the subject of very favorable comment in the trade. In this fruit, Australia can compare favorably with any other competing country. There are three grades shipped to this country — choice, standards and seconds—and it seems desirable that a larger proportion of the choice grade should be sent from Australia, if only for publicity purposes.

The number 2½ size (30 ozs.) continues to be most popular, but there is a growing demand for the smaller No. 1 size (16 ozs.). All Australian canned fruits sold on the United Kingdom market are distributed by arrangement with the trade on a quantitative basis, with appropriate trade discounts. This arrangement—begun in 1934—has given great satisfaction to the trade. Most of the fruits shipped to this market find their way to London, which takes about 60 per cent. of the total arrivals. The rest go to such centres as Liverpool, Glasgow, Avonmouth and the smaller outports.

The chief competitor is, of course, America (California). However, Australia is making slow and steady headway toward ousting foreign competition, and is leading the way as far as Empire countries are concerned.

Scotland is a market that has been opened up, but it is felt that it will be some time before this market reaches its full development, because of the traditional conservatism of the Scots.

"Pines" and Fruit Salad Popular.

Remarkable progress has been made in the marketing of Queensland Pineapples, the quality of which has improved very considerably in the last few years. The demand here is such that orders cannot be fulfilled. If this new field can be properly handled, and this market catered for, the prospects are very bright indeed.

Fruit salad is another variety which has recently been added to the canned goods distributed by the board. Experimental shipments have proved that Australian fruit salad is assured of a future on this very critical market.

New Season's Prices

Peaches and Plums Increased.

Processing Prices Fixed.

The fruit Industry Sugar Concessions Committee, on November 20, announced the minimum prices to be paid for fruit for processing. No alteration has been made in the minimum prices for Apricots and Pears, but an increase of £1 a ton has been fixed for Peaches. According to the chairman of the committee (Mr. A. R. Townsend) the maintenance of prices at these levels is due largely to the improvement of conditions of the domestic and overseas markets for canned fruits. The only increase in the price of jam fruits is in reference to Plums, the price of which has been increased by £1 a ton.

The following minimum prices which apply uniformly in all States were determined:—

	For Canning; a Ton. £	For Jam; a Ton. £
Apricots	12	10
Clingstone Peaches—		
Clear-centred varieties	12	8
Other varieties	11	8
Freestone	10	8
Pears	10	—
Keiffer Pears	8	—
Plums	—	7
Quinces	—	7
Pineapples	4/6 a case	

Mr. Townsend announced that the question of assisting exports of manufactured fruit products would be considered by the committee "in the near future." The prices nominated for fruits for canning were on the basis of delivery by growers to a railway siding or a grower's district cannery. Those for fruit for jam-making were on the basis of delivery to metropolitan factories, but where country factories were supplied the rates were £1 a ton less than those quoted. Processors would be required to pay the minimum prices mentioned for their fresh fruit during 1935-36 season in order to qualify for payment of domestic sugar rebate and such special export assistance which the committee might provide on fruit products.

NEW SUGAR AGREEMENT.

£216,000 for Fruit Industry Instead of £200,000.

The new sugar agreement provides for assistance to the fruit industry to the extent of £216,000, instead of £200,000, as in the previous agreement.

In moving the second reading of the Bill, the Minister for Customs (Lt.-Col. White) said that the embargo which had been in force for 20 years was necessary to stabilise the industry. Sugar production was on a highly efficient basis. The Australian capital city price of 4d. per lb. was now less than the average retail price in the 19 principal countries in the world—5.44d. in Australian currency. Beet sugar production was only profitable because it did not have to share export losses.

Canned Fruit Exports

THE Secretary of the Canned Fruits Control Board advises that the export of canned fruits from January 1 to October 30, 1935, were as follows (figures in doz. 30-oz. tins or its equivalent):

Country.	Apricots.	Peaches.	Pears.	Pineapples.	Fruit Salad.	Total
U.K.	305,697	1,128,893	630,384	76,437	14,688	2,156,099
N.Z.	39,620	53,777	5,588	1,673	—	100,658
Canada	13,415	110,708	11,018	37,896	4,750	177,787
East	5,143	14,825	9,775	336	1,188	31,267
Misc.	840	1,327	2,383	354	71	4,975
TOTAL	364,715	1,309,530	659,148	116,696	20,697	2,470,786

In addition to the foregoing exports, 30 dozen Apricots, 190 Peaches and 150 dozen Pears, packed to 11 oz. size have been shipped to the United Kingdom.

RICH FROM CANNING.

A Lucky Chance.

Mr. F. G. Elder admits that he earns £10,000 per year from a business which he established just to fill in time. In an interview given to a newspaper reporter in London recently, he stated that he first began to engage in canning Grapefruit in order to fill in time rather than waste it by doing nothing.

"I opened a small cannery in Florida," he stated, "just to give me something to do. The business prospered and simply would not keep small, largely because of the growing popularity of Grapefruit in England.

"Now my plaything is a business that keeps me busy enough to satisfy me, it employs 600 people, and is making me richer than I ever was before. As a business it is worth £10,000 a year to me. We pack 300,000 cases of fruit a year, and England consumes about half of them."

Fight *the* Codlin Moth

With the Most Effective Weapon

COOPER & SONS

CHEMICAL

CODLIN MOTH TREE BAND

It is offered with every confidence by the manufacturers as an effective means of control. The band acts as an effective trap, and the chemical qualities of the band kill the grub. Sold in rolls 200 feet long, sufficient to band 140 trees.

Ample suitable clips with each roll.

Weather Resisting and Easy to Handle

COOPER & SONS, 626 King Street, Newtown, Sydney

CITRUS NEWS & NOTES

Murrabit Field Day

MODERN PACKING SHEDS

A VISIT to the Murrabit Packing Company's orchard and packing sheds was recently paid by a large number of local fruit growers, when an instructive and enjoyable afternoon was spent.

Murrabit has suffered in reputation by the failure of some growers of the misfit and inexperienced type, but these conditions have largely been rectified, and the future of the district looks very promising. Now, fortunately, every grower is an experienced man, and the mistakes of the past are not likely to be repeated.

Citrus Culture.

Although the main industry in the district is citrus culture, other fruits are being grown in fair quantity, and pasture land represents a substantial area.

The company packed 52,000 cases of citrus fruits last year, and indications are that this quantity will be surpassed next season. New plantings this year will require 50 to 60 acres of fresh trees, demonstrating that the industry in the district is expanding.

Murrabit is a "late" area, its best Navels come on the market when other areas have completed their crops, and, by modern packing methods, its "Blue Ribbon" brand is becoming recognised in many markets.

During the past three years, including this years' planting, about 120 acres of citrus have been planted, about half each Valencias and Navels, with a few Grapefruit. These new plantings are more than taking care of "wastage." The production is gradually increasing, and the company expects to pack 100,000 cases within five years. The trees are all looking well, especially the young trees, and there is a very heavy setting for next season. Many overseas and soldier settlers have left their blocks, their blocks being allotted to other settlers. Practically all closer settlers remaining have been given extra areas, and any blocks vacant are being taken up by settlers from other districts, mainly the Mallee.

The Packing Shed.

Equipped with up-to-date machinery, conveniently placed, the packing shed is well fitted to give efficient and appreciated service. Its gas storage chambers gives the right color to Valencias, and the method is credited with securing for growers an increased price up to 5/- per case. Polishing, grading, sorting, packing, etc., is done on the upper floors, to which the fruit is conveyed by a hopper elevator, after final packing they return to the shipping room on gravity rollers. In all departments time and labor-saving devices are installed, and quality and despatch are the dominating principles of this up-to-date packing shed.

? ? ? ? ? ? ? ? ?
QUERIES QUESTIONS DOUBTS

As to the Best Outlet for Your Fruit
can be dispelled by consigning it to

T. J. POUPART LTD.

COVENT GARDEN
LONDON, W.C.2.

SOUTHAMPTON BRISTOL LIVERPOOL HULL

Account Sales rendered are the best test of Salesmanship. On that test we have emerged from obscurity in 1895 to world-wide repute in 1935

Consignments of Oranges Solicited

Separate Department for Dried and Canned Produce and Pulp.

— AT —

SPITALFIELDS MARKET
London, E.1.

Tasmanian Growers ship through Eric E. Burgess, 88 Collins Street, Hobart.
Victorian Growers ship through Fred J. Andrew, 153 William Street, Melbourne.

CHEAP RAILWAY FREIGHTS.

Single Packages Delivered.

The Victorian Railway Commissioners announce that small single packages of fruit consigned from country stations to Melbourne will be delivered within certain metropolitan areas at the flat rate of 1/- each. This applies also to Tomatoes and country produce in handy sized packages.

Freights, on a low basis, will be applied to both passenger and goods trains, the object claimed being to assist country growers to use the railways for delivering such goods to city dwellers.

NEW SOUTH WALES.

Citrus Growers' Defence Association.

The annual meeting of the N.S.W. Citrus Growers' Defence Association was held at Sydney on November 15, Mr. W. J. Black presiding.

Resolutions were carried opposing control legislation, and urging the Government to take a referendum of commercial growers for the abolition of the orchard tax.

Office-bearers were elected:—President, Mr. W. J. Black (Mangrove Mountain); Vice-Presidents, Messrs. R. Hill and E. P. Fuller (Lisarow), E. N. Birks (Wamberal); Executive, Messrs. G. O. Maher (Lisarow), R. Roughley (Middle Dural), W. Schwebel (Glenorie), W. E. Smith (Dooralong), H. C. Yarnall (Ourimbah); F. Bryant, Mangrove Mountain (Hon. General Secretary), and V. S. Fagan, Lisarow (Hon. Treasurer).

Resolutions of appreciation were carried to Messrs. E. N. Birks (past president) and H. Gordon Bennett for their services.

ORANGES FOR TASMANIA.

The Tasmanian Minister for Agriculture (Hon. R. Cosgrove) stated recently in reply to representations from the State Fruit Board that Tasmania would insist on 100 per cent. inspection of Oranges should any specimens affected with fruit fly be detected.

FIXED PRICE FOR ORANGES?

H.W.S., Kingston-on-Murray, South Australia, writes as follows:—

Growers have had a rough time, but now that the dried fruits are controlled there is a safe stability to work on. I will be pleased when our citrus fruits are similarly treated. I would favor price fixing, i.e., W.N.O's. from say 68 to 112, 7/-, 112 to 126 8/-, 126 to 168 10/-. The grower and consumer would know just what they would receive and pay for a case of W.N.O's.; at present the retailer handles the job to suit himself.

LEMONS FOR LONDON.

Taking advantage of the high prices for Lemons expected in London to follow the outbreak of war between Italy and Abyssinia, the Southern Victorian Pear Packing Co. recently sent a shipment of 530 cases of Lemons to London. They arrived in excellent condition, having been semi-cured, brought good prices, and there was no waste.

Following their first success, a further shipment has been sent from the Doncaster district.

Dried Fruits Department

TRADE WITH CANADA

Continued Preference Sought

THE Federal Government is at present investigating the possible effect of the new trade agreement between Canada and United States upon the Australian dried fruits industry.

At present Canada gives a preference of twopence per pound to Australia, and if this preference is maintained the agreement with the United States will not materially prejudice Australia's trade with Canada. But the preference expires on March 31 next, when it will revert to 1½d. per lb., unless the present preference is renewed.

Any arrangements affecting dried fruits which might be contained in the treaty between America and Canada is of vital interest to Australia, mainly in consequence of the Canadian-Australian trade treaty. During recent years Australia has captured the whole of the Canadian market for Currants, and has replaced California as the principal supplier of Raisins. This is indicated by the fact that in 1928 Australia shipped to Canada only 1,559 tons of Raisins, compared with 17,554 tons shipped from California, while in 1933 Australia exported 11,788 tons of Raisins to Canada and the shipments from California dropped to 3,909 tons. In 1934 Australia supplied 70 per cent. of the Raisins and 99 per cent. of the Currants imported by Canada.

Other Exports.

In 1935, Australia produced 64,753 tons of Currants, Sultanas and Lexias, and the development of the market for Australian dried fruits in Canada and New Zealand suggests that, with a continuance of preference to Empire fruit in these Dominions, a steady trade of 20,000 tons annually can be expected.

If that happy state of affairs continues, even if the maximum total production of 80,000 tons were achieved, the quantity to be shipped to Great Britain would not exceed approximately 45,000 tons, after allowing for exports to smaller markets. There is, in any event, an assured market for a crop of from 65,000 to 72,000 tons, provided that existing trading conditions remained.

In the event of a crop of more than 65,000 tons being returned under favorable cultural and processing conditions, it would appear that the production in excess of 70,000 tons must constitute a depressing factor in realisation, and might result in a carry-over to the following season, particularly if the heavy Australian crop coincided with equally heavy production in Mediterranean and Californian producing centres.

With this eventuality in mind, the Dried Fruits Board reiterates its caution that, for the time being, no additional plantings of vines for dried fruits production is warranted.

N.S.W. DRIED FRUITS.

Home Consumption Quotas.

THE Minister for Agriculture, on the recommendation of the N.S.W. Dried Fruits Board, has announced the following quotas for dried fruits that may be sold within the State during the 1935-36 season:

	Per Cent.
Currants	17½
Sultanas	17½
Lexias	70
Prunes	50
Peaches	60
Apricots	52½
Nectarines	65
Pears	65

Interstate Quotas.

The following quotas have been determined under the Commonwealth Dried Fruits Act as applying to interstate trade:—

	Per Cent.
Currants	82½
Sultanas	82½
Lexias	30
Prunes	50
Peaches	40
Apricots	47½
Nectarines	35
Pears	35

The department, however, reserves the right to review these quotas if circumstances call for such action.

VICTORIAN DRIED FRUITS.

The Government Statist has released the figures relative to the amount of dried fruits produced in 1933-34, as compared with 1934-35, as follows:—

	1933-34.	1934-35.
Apples . . . lbs.	1,856	3,301
Apricots	255,971	116,007
Figs	5,838	6,239
Nectarines	4,945	379
Peaches	145,624	165,363
Pears	72,106	22,773
Prunes	796,296	571,715
TOTAL	1,282,636	885,777

so, though Apples, Figs and Peaches showed an increase, the aggregate shows that in all varieties a decided drop has occurred, especially in Nectarines and Pears.

VICTORIAN DRIED FRUIT.

State Consumption Quotas.

The Victorian Dried Fruits Board now advise the maximum proportions of dried fruits, produced during 1935, which may be marketed within Victoria:—

	Per Cent.
Currants	17½
Sultanas	17½
Lexias	70
Prunes	50
Peaches	60
Apricots	52½
Nectarines	65
Pears	65

A £10 FINE.

Prosecution Under Dried Fruits Act.

At the Albury, N.S.W., Police Court recently, F. M. Esler was convicted on a charge of committing a breach of the regulations under the Dried Fruits Act. A fine of ten pounds was imposed, together with costs totalling £3/11/-.

The charge against defendant was that he sold, to a storekeeper at Albury, dried fruits in cases not branded at a packing shed registered with the N.S.W. Dried Fruits Board and in accordance with the requirements of the regulations under the Dried Fruits Act.

It was represented for the defendant that he was an agent for another man, and received a small commission only on each sale of dried fruits. His principal had been convicted two weeks previously at the Whitton Police Court, and fined £100 for similar offences.

Mr. Watson, of the Crown Law Office, Sydney, appeared for the N.S.W. Dried Fruits Board, which instituted the proceedings.

FOREIGN RAISINS INCREASE.

News now comes that Spain, Greece and Turkey will have a larger crop of Raisins to market this year than in 1934. It is anticipated that the crop will reach 119,000 tons, as against 95,300 tons last year, an increase of 25 per cent. over 1934, and 32 per cent. over the average of 90,250 tons in the five years 1929-1934.

W.A. DRIED FRUITS.

There are about 400 registered growers of dried vine fruits in Western Australia, and the industry is growing satisfactorily.

The biennial election for office on the State Dried Fruits Board will be held on December 9, when five seats will be filled. Eight nominations were reported by the secretary, Mr. E. H. Rosman. The board members elected will serve for two years.

A DRIED FRUITS WEEK.

Private Companies Help.

A report just received from California advises that the Safeway Stores, a large grocery company, which has stores in 21 States and employs over 19,000 hands, recently put over a "dried fruits week" in an attempt to stimulate the consumption of such fruit, and thus help growers to dispose of their large stocks.

No fewer than 800 newspapers in various States carried advertisements for dried fruits during the week, thousands of display posters were exhibited, and dried fruit recipe books were freely distributed.

This special personal effort resulted in increased sales during the week, and will doubtless effect an increased sale of dried fruits for a considerable time to come. The co-operation of our own large chain stores in some such effort would materially supplement the efforts of the A.D.F.A., and also assist the industry.

SECURE YOUR
FRUIT CASES
.. from a reliable manufacturer. ..
Write for further particulars and prices.
R. W. HALL & BLOOM PTY. LTD.,
Case Manufacturers,
Whitehorse Rd., Mitcham, Vic.

VITICULTURAL FIGURES.

A Drop in 1935.

The Government Statist's report for 1934-35 season reveals that in Victoria there were 2,509 growers operating on 41,180 acres carrying 37,592 acres of trees in bearing and 3,588 not in bearing.

The total crop harvested for the year represented 3,239,660 cwts. of fruit, of which 172,255 cwts. made 1,276,176 gallons of wine (but of this quantity, 504,120 gallons were utilised for distillation purposes), 3,005,144 cwts. were converted into dried fruits in the following proportions: Lexias, 78,532 cwts.; Sultanas, 514,209 cwts., and Currants, 176,023 cwts., whilst 62,261 cwts. was absorbed for table consumption.

In comparison with the previous year, the total quantity harvested decreased by 339,385 cwts. 415,215 gallons of wine less than 1933-34 were made. Currants were the only line showing an increased production in 1934-35, gaining 26,504 cwts., but in all other departments the viticultural statistics were lower for the current season.

DRIED FRUIT GROWING.

Field Day at Woorinen.

The Dried Fruit Enquiry Committee's experimental farm at Woorinen was a busy centre on November 20, when some 250 vinegrowers attended a field demonstration. Mr. D. V. Walters, of Merbein, demonstrated the effect of burying prunings, and Mr. F. Penman, of the Department of Agriculture, explained moisture penetration in particular soil types.

The block upon which the demonstration was made was abandoned, taken over by the committee in 1932, and, with the assistance of the Council for Scientific and Industrial Research and officers of the Department of Agriculture, had been brought to effective bearing. Last year it yielded nearly three tons of fruit, and as an experimental station is now of inestimable value to the State.

AUSTRALIAN DRIED FRUITS SALES IN GREAT BRITAIN.

The Commonwealth Dried Fruits Export Control Board report that advice has been received from the London Agency of the board that 600 tons of Australian dried fruits were sold in Great Britain during the fortnight ended November 21, 1935. The realisations included 459 tons of Sultanas at an average price of £39/14/5 per ton, and 132 tons of Currants at an average of £28/17/7 per ton.

Gerrard Sales and Service
GERRARD WIRE TYING MACHINES CO. PTY. LTD.
Head Office and Works: 18-24 IRELAND STREET, WEST MELBOURNE
Branches and Agencies:
269 Sussex Street, Sydney
19-25 Makerston Street, Brisbane
Malton Street, Adelaide
W. A. Bank Chambers, Perth
Flinders Street, Townsville
Collins Street, Hobart
GERRARD
The Tie That Binds

Cold Storage In Australasia

The Cool Storage of Fruit

Apples, Pears, Peaches, Plums and Oranges

Ripening Fruit After Storages

Washington Navels Can be Held Three Months in Cool Store.

(Republished from the "Journal of the Australian Institute of Agricultural Science," Sept., 1935, by G. B. Tindale, B.Ag.Sc., Victorian Dept. of Agriculture, and S. A. Trout, Ph.D., Council for Scientific and Industrial Research.)

[The following brief notes refer to the research work on fruit storage problems being carried out jointly by the C.S.I.R. and the Victorian Department of Agriculture at the laboratories and experimental chambers of the department at the cool stores, Victoria Dock, Melbourne.]

FRUIT IN COOL STORE is affected, and its effective storage life limited, by a large number of disorders, many of which do not occur in fruit stored at normal temperatures. The research work being conducted at present is chiefly directed to the study of the fundamental nature of these disorders.

Previous experiments disclosed that in each particular kind of fruit the characteristic disorders appear in **regular sequence** after a certain period in cool store. This suggested that the disorders were normal changes associated with the senescence of fruit held at low temperatures. Efforts were then directed towards ascertaining the life histories of fruit in cool store, with the object of determining, if possible, when any particular fruit reached its period of senescence. This was accomplished by collecting and measuring the daily output of CO_2 from individual fruits held at constant low temperatures. To-day we have apparatus for determining the rate of respiration of 120 individual fruits.

Plotting our results, we find with all fruits that, the rate of respiration increases to a point termed the climacteric, then falls — with some fruits rapidly, others slowly. With Williams Pears the fall after the climacteric is very rapid, and respiration soon ceases entirely. This marks the death of the Pear. It is on this downward drift of the curve, i.e., the senescent period that the Pear disorders make themselves manifest. Mealiness, core-collapse, and finally scald appear in sequence, scald appearing just prior to the death of the Pear.

The Ripening of Pears.

Pears removed from cool store before, but not after, the climacteric is passed, can be ripened perfectly if removed to temperatures approximating to the normal ripening temperatures for the varieties concerned. For instance, summer ripening Pears, like Williams, require a ripening temperature approximating to 65 degrees F., while later autumn ripening Pears, like Winter Nelis, can be ripened at a temperature as low as 50 degrees F.

Removed to a ripening temperature after the climacteric is passed, the Pears will not ripen normally, but rapidly develop the above-mentioned disorders.

The date of reaching the climacteric in cool store does not vary appreciably from season to season, nor do the growing conditions appear to have any significant effect. The time of picking—when the Pear is fully developed but still hard and green—also does not vary appreciably from year to year, and, in consequence the storage life for each variety, that is, from its arrival in store immediately after picking, to a time just prior to the climacteric, is a "fixed" characteristic of each variety.

For instance, at the best storage temperature, 30-32 degrees F., the Williams variety has a storage life of 12 weeks, while the Winter Nelis has a storage life of six months.

Plums in cool storage behave remarkably similar to Pears. They also require picking when green, but fully developed, and require storing at a temperature of 30-32 degrees F. They must also be removed before the climacteric is passed, otherwise mealiness and internal browning (particularly around the stone) will develop. Plums ripen at temperatures as low as 50 degrees F., but, compared with Pears, their storage life is very short.

Indeed, with most varieties of Plums, the storage life when picked in a green condition and immediately stored does not exceed 7 to 8 weeks, and hence the export of Plums overseas involves considerable risk.

The storage life of Peaches is even shorter than that of Plums, and with most varieties is limited to five weeks when stored at 32 degrees F.

Apples and Oranges behave in cool store quite differently from Pears and Plums. They cannot be picked in a green, immature condition, for, although fruit so picked store well, yet on removal from store they cannot be ripened with normal development of flavour. Equally important however is the fact that they cannot be picked too mature, as their subsequent storage life is thereby considerably reduced.

Apples require picking when the ground color is just turning from green to yellow, whilst Oranges should be picked as soon as they are possessed of fair eating quality.

Both Apples and Oranges are picked closer to their climacteric than are Pears, and they differ from Pears in that they can be stored for a period appreciably beyond the climacteric. With these fruits the respiration curve does not fall sharply to zero after the climacteric is reached, as is the case with Pears, but the fall is slow, and after a while the curve rises again. With the occurrence of this latter rise we find that there is a complete loss of flavor in both the Apple and the Orange. Shortly after this, the Orange, in particular, appears to lose all natural resistance to mould attack, for it is usual to expect general mould attack at this stage in the life of the Orange. Indeed, we would say that general mould attack is a normal occurrence in senessent Oranges.

With Washington Navel Oranges, we find the optimum picking time to be about mid-June. Navels picked at this time have a storage life (limited by loss of flavor) of 12 weeks. If picked later than mid-June the storage life is reduced by the length of time the fruit is allowed to stay on the trees after this date. Navels stored beyond the maximum period of 12 weeks lose all their flavor, and shortly afterwards are invaded by mould.

With all fruits examined, the study of the respiration curve has proved practically essential to a proper understanding of cool storage behaviour, and offers the logical basis upon which more detailed knowledge may be built.

Explanatory Memos.

Optimum Picking Time. There is for each particular fruit an optimum picking time. At this time the fruit is at that particular stage of maturity, so that when stored, good quality is combined with reasonably long storage life. When picked earlier, quality is lacking; while, if picked later, the storage life is considerably reduced.

Climacteric and Period of Senescence. In studying the rate of carbon dioxide output of fruit in store, it is found that the rate increases to a maximum termed the climacteric, and then declines, termed the period of senescence. At the climacteric, flavor, aroma and lusciousness are developed to a maximum, while after the climacteric is passed these qualities gradually decline.

PLUM EXPORT.

Still in Experimental Stage—English Varieties Best—Pick When Immature and Ship at end of January.

PLUMS IN COOL STORAGE and for export, form the subject of a special report by Messrs. G. B. Tindale (Victorian Department of Agriculture), S. A. Trout, and F. H. Huelin (Council of Scientific and Industrial Research).

The report emphasises that additional experimental work must be undertaken before definite conclusions are reached: however, the present findings were that owing to the limited storage life of all Plums, there was considerable risk attached to export overseas. Where export was attempted attention should be confined to those varieties with the longest storage lives, and in this respect the European varieties were generally superior to the Japanese varieties.

To obtain the longest storage life, Plums should be picked when fully grown, but when definitely immature.

The red and blue varieties should show only the first signs of color, while the yellow varieties should be still hard and green. The thinning of the crop was recommended to obtain the requisite size.

The Plums, after being picked, should be promptly precooled to a temperature of 31 degs. Fah., and then packed and shipped as soon as possible. Shipment within a week of picking was necessary, thus limiting export to the last two weeks of January. The storage life of Plums varied from five to nine weeks, and after storage the Plums would ripen in two weeks at 50 degs. Fah., or four or five days at 65 degs. Fahr. The atmospheric temperature in English warehouses in March was fortunately about 50 degs. Fahr., which would coincide with the arrival of Plums.

Ships' holds should be well ventilated to prevent excess of carbon dioxide. The temperature should be 31 degs. F.—Vic. Journal of Agriculture.

APPLES AND PEARS IN STORAGE.

For Three-quarters of 1935.

According to reports received by the Government Statist from managers of cool stores in Victoria, the following quantities were in cool store at the end of each quarter of 1935 up to October 31.

	June 30	Aug. 31	Oct. 31
Apples (cases)	750,000	470,000	152,000
Pears	70,000	21,000	600

Applicant for certificate in driving tests, half dazed by the varied questions of the examining official, was finally asked to describe a foreign body.

"Greta Garbo," he replied.

Mitchell Spray Plant with 3 H. P. **Lister Engine**
A HIGH GRADE COMBINATION IMPOSSIBLE TO BEAT

LISTER ENGINE—The world's most reliable power. Totally enclosed. Dirt cannot harm it. Vertical cylinder.
MYERS' TYPE PUMP—Cylinders porcelain lined. Valves and seats rustless steel. Gears nickel steel, machine cut, hardened. Pressure constant.
PRESSURE UNLOADER — Automatically relieves pressure on engine and hoses when spray is closed.
STRAINER—Easily cleaned, as placed on top of vat—not inside it.

Easy terms. Write. Please mention this advt.

MITCHELL & CO. PTY. LTD.
Head Office & Factory: West Footscray, W.11.
Showroom: 596 Bourke Street, Melbourne.

Interstate News & Notes

NEW FERTILISER ACT IN N.S.W.

Main Provisions Described

Brands Must Be Registered and Labels Must Show the Constituents.

FOR SOME YEARS PAST the N.S.W. Department of Agriculture has realised that the Fertilisers Act, 1904, did not provide adequate safeguards to purchasers of fertilisers, and during the last session of Parliament the opportunity came to put through an up-to-date Act. This Act, which came into operation on June 7, 1935, is largely adapted from the Victorian Fertilisers Act, **and the principal safeguards afforded to purchasers are that every fertiliser must be sold under a registered brand and must bear a label showing the constituents.** An invoice certificate giving these same particulars must also be delivered to the purchaser. Further details of these provisions are set out below.

For the purpose of the Act a fertiliser is a substance other than farmyard or stable offal, crude nightsoil, crude offal or other unmanufactured offal, which contains nitrogen, phosphoric acid or potash, and is used for fertilising the soil. Substances such as lime or guano are not fertilisers and cannot be sold as fertilisers.

Analyses Must be Shown.

The particulars which must be stated on the invoice certificate and the label are:—The name of the place of business of the vendor; the brand of the fertiliser; the quantity and the proportion per centum of nitrogen, phosphoric acid and potash, and the forms in which they occur in the fertiliser. The forms to be shown are:—

Nitrogen. — Nitrate nitrogen, ammoniacal nitrogen, organic nitrogen (i.e., blood flesh, bone, vegetable meals and synthetic organic compounds).

Phosphoric Acid.—Water soluble, citric acid soluble, citric acid insoluble.

Potash.—Sulphate, chloride (muriate) nitrate.

In the case of **bone-dust** or bone fertilisers the percentage of fine material and coarse material must be shown and the quantity of fine material must be at least 50 per centum. The vendor is allowed a 5 per cent. margin in the stated quantity of fine material, and is also allowed the margins set out in the schedule to the Act in the stated quantities of nitrogen, phosphoric acid and potash.

Purchasers are entitled to take samples on compliance with the regulations and have them analysed by an analyst. The costs of analysis are set forth in the regulations.

Brands Must be Registered.

A register of brands will be kept by the Chief Chemist of the N.S.W. Department of Agriculture, and this will show the constituents of every fertiliser registered. This register may be inspected or a certified copy of any entry may be obtained at the cost of 5/-. In the months of December or January in each year a list of fertilisers will be published in the "Government Gazette" showing the prices asked, the average unit values of the constituents and the brands.

The provisions of the Act do not apply to the sale of bulk lots of fertiliser compounds to a manufacturer of fertiliser, and persons who sell fertiliser in quantities less than half a hundredweight are only required to sell the fertiliser under a registered brand.

N.S.W. ORCHARD TAX.

Hawkesbury Growers Ask for a Referendum as to its Continuance.

THE N.S.W. ORCHARD TAX was the special subject under discussion at a large and representative meeting of fruitgrowers held at Windsor at the end of October. Growers attended from all parts of the Hawkesbury district. The meeting was convened by the Hawkesbury District Citrus Growers' Association.

The chairman, Mr. J. Wesley Mitchell, said he desired all aspects to be dealt with, and invited open discussion.

Mr. A. Thompson (Wilberforce) said that while not objecting to the principle of the tax, he did not agree with the administration. In his opinion a vote should be recorded at this meeting for abolishing the tax.

Mr. Midson (Maraylya) stated that when the orchard tax was commenced, a promise was given that a referendum on its continuance would be taken. This had not been done. The N.S.W. Fruitgrowers' Federation had received the following sums — 1928, £2,668; 1929, £4,679; 1930, £2,322; 1931, £3,834; 1932, £3,290; 1933, £4,087; 1934, £4,940, and 1935, £5,314. The Federation's balance-sheets showed that the bulk of the money had been spent in administration. The Government should fulfil its promise and take a referendum.

Mr. Brown (Glossodia) claimed that the Federation was not functioning as it should. The orchard tax should be repealed. Mr. Good (Wilberforce) was also of the opinion that the industry had not received the benefits which should have accrued as a result of the funds raised by the orchard tax. Having failed in its purpose the tax should now be abolished.

Mr. C. Kaiser (Sackville) opposed the continuance of the tax. The Federation had many kinds of affiliated organisations, including parents' and citizens' associations.

Mr. T. W. McMahon (Kurrajong) concurred with Mr. Midson's contention that when the tax was first instituted the promise of a referendum had been given. As one of the original workers for the tax, he would say that the industry had not benefited by the tax as it should have done.

Mr. Midson moved:—

That in view of the fact that a definite promise was made by the Government when the orchard registration tax was first instituted, this meeting respectfully requests the Government to honor that promise and to take a referendum.

In seconding, Mr. Kaiser said the request for a referendum was democratic, and the agitation should be spread far and wide.

Mr. F. A. Stubbs moved that a request be made to the Government to abolish the orchard registration tax.

Mr. Good seconded.

The amendment was lost, and the motion on being put was carried unanimously.

Fruit Fly in N.S.W.

Compulsory Control Methods

REGULATIONS FOR THE CONTROL of fruit fly were recently issued by the N.S.W. Government. The regulations apply to growers, also wholesale and retail distributors.

All fruit infected with fruit fly must be removed from the trees, and any fallen fruit must be collected at intervals not exceeding three days. This course is obligatory upon all owners and occupiers of land upon which one or more fruit trees are growing. Waste fruit, or fruit which is infected with fruit fly, must be immediately destroyed by immersion in boiling water for at least ten minutes, by burning it so as to destroy all eggs and larvae of the fruit fly, or by placing it in an insect-proof pit.

The using of fruit fly traps or of a poison spray is compulsory in certain districts. Traps are required to be kept in the trees for at least five weeks prior to the ripening of the fruit and until the whole of the fruit has been harvested. They must also be retained for a further period of one month in the trees, from which the latest variety of fruit was harvested. At least one trap must be used for every eight trees, and no tree must be more than 50 feet distant from a trap. The traps must be kept baited with at least 6 ozs. of lure in the proportions of one teaspoonful of vanilla, one tablespoonful of ammonia, and three breakfast cups of water. Spraying in accordance with the prescribed formula may be carried out in place of trapping.

Any infringement of the regulations involves a fine of £50.

Compulsory Spraying Formula.

Manufacturers should note that unless proprietary lures comply with the departmental formula they cannot legally be used.

The prescribed formula is a mixture of fruit syrup, water, molasses or treacle, and arsenate of lead powder, in the proportion of 1 gallon of fruit syrup thoroughly mixed with 3 gallons of water, 4 lb. of molasses or treacle, and 4 ozs. of arsenate of lead powder. The fruit syrup is to be made by boiling fruit in water at the rate of 5 lb. of fruit to 1 gallon of water.

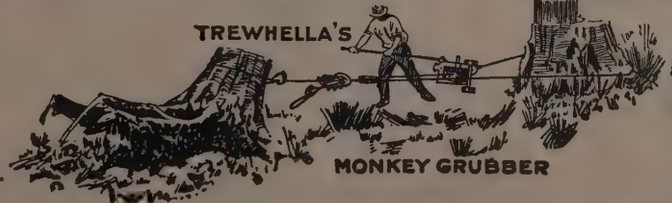
ARE YOU GRUBBING?

Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features, with a host of others, was THE "MONKEY" GRUBBER.

It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

REMEMBER FOR YOUR GRUBBING THERE'S ONLY

TREWHELLA'S



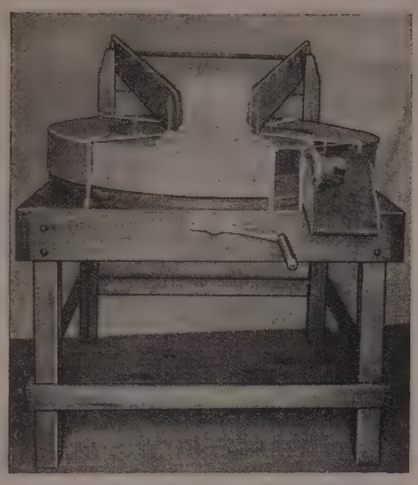
H. H. HINDS, 225 Clarence Street, Sydney.

A. G. WEBSTER & SONS, Hobart & Launceston.

A. ROBINSON, 821 Ann St., Brisbane

Leading Stores and Merchants, South and West Australia.

TREWHELLA BROS. Pty. Ltd. Trentham, Vic.



CENTENARY

APPLE WIPING MACHINE

Has stood the test.

◆

No Brushware.

◆

Replacements Practically Nil.

◆

Definitely Does Not Bruise the Fruit.

◆

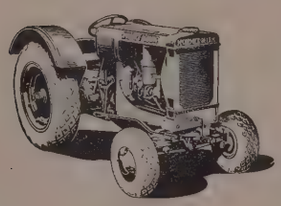
Full particulars from—

E. G. Phillips
COOL STORE,
Croydon, Vic.

Fruit Growing Made Easy

by practical power plant

INTERNATIONAL Harvester offers you these practical power units to reduce heavy orchard work to a minimum. They are wonderful time savers and carry out their tasks with the mechanical precision and thoroughness which are essential to success in fruit-growing on a commercial scale to-day. See your local agent or write to us for illustrated pamphlets.



O-12 Tractor

McCormick-Deering O-12 Tractor

The McCormick-Deering O-12 Tractor is popular among orchardists everywhere because it is just the type and size of mobile power unit for orchard work, for which it was designed and built. Low, narrow and short, it works among low-hanging branches and avoids injuring the crop or trees. It operates ploughs, harrows, spraying plant and other orchard equipment at exceptionally low cost for fuel and maintenance.

2-Wheel Sprayer

McCormick-Deering Power Sprayers

Made in two-wheel and four-wheel types, McCormick-Deering Power Sprayers are entirely self-contained, the engine and pump being mounted on a substantial truck into which the vat is built. A low centre of gravity makes them particularly suitable for hilly country as well as on level ground. McCormick-Deering Power Sprayers are light in draught and economical to use.

International B-7 Tractor Orchard Mouldboard Plough

A splendid plough for orchard work. Can be worked close to trees and can be adjusted for shallow ploughing so that it will not injure the roots. Power-lift device operates quickly and efficiently. Made in 2 and 3-furrow sizes and cuts 9-in. furrows.

B-7 Tractor Mouldboard Plough

International Model V Tractor Disc Harrows

The International Model V Tractor Disc Harrow has a cultivating width of 8 feet and is equipped with fourteen 18-inch discs made of high-quality, heat treated steel. It is regularly equipped with a spring swivel hitch which enables the implement to be coupled close to the tractor.

Model V Tractor Disc Harrow

INTERNATIONAL HARVESTER COMPANY OF AUSTRALIA PTY. LTD.
[INCORPORATED IN VICTORIA]

BRISBANE SYDNEY MELBOURNE ADELAIDE PERTH

ROBT. NETTLEFOLD PTY. LTD., HOBART, AGENTS FOR TASMANIA

L958

Victorian News and Notes

VICTORIAN FRUIT CROP PROSPECTS FOR 1936.

A Resume of a Radio Talk Over 3AR, Melbourne, December 3, 1935.

(By J. M. Ward, Superintendent of Horticulture.)

OWING to the peculiar and unfavorable weather conditions experienced since blossoming, it is rather difficult to arrive at anything like an accurate estimate of the forthcoming fruit crops. An endeavour, however, is made to give one to the best of one's ability.

Apples.

In December of last year, I estimated the 1935 Apple crop to be about 2,250,000 cases, and, according to the Government Statist's figures, the crop was only 2,085,081, therefore the estimate was a little over the actual production.

The hail storms in certain localities on November 12, followed by a heavy storm throughout the State on the 15th, accompanied by hail in certain districts, have been responsible for reducing marketable fruit in some, but not all, districts. A few weeks ago the development of black spot promised to be rather serious, but the present prospects for cleaner fruit are now more favorable. Nevertheless, there are indications too many Apples will be affected with this fungus, and may somewhat reduce the quantity available for export.

In every Apple growing district there are a number of growers who have taken every precaution to control the disease: Such growers have been rewarded with success; others, not so careful, now find a fair percentage of their Apples affected; others, again, more particularly in northern areas where black spot has not been very troublesome in the past, have taken the risk, and have not sprayed at all: it is hoped that this experience will be taken note of for future guidance.

In instances where crops are heavy, growers would be wise to as far as possible remove all Apples and Pears badly affected with hail and black spot. Where light or fair crops exist, removal of the diseased or hail-marked fruit at too early a stage is not recommended, as the remaining fruit will probably be oversize at harvesting.

Some districts are lighter than others, but, taking the State as a whole, there are indications that the Apple crop will be a little greater than that of 1935. My present estimate of production of Apples for the State for the 1936 season is approximately two and a quarter million cases, or a little more. I am not unmindful, however, that if wet conditions are experienced between now and, say, February, black spot may further reduce the marketable quantity, although it now appears that hail-marked fruit will lighten the crop to a greater extent than black spot. Codlin moth is also a factor that must not be overlooked.

Of the export varieties, Jonathan is the chief one, and there appears to be quite a good crop of this variety. Of the other favored kinds, Granny Smith, Stewarts, Yates and Rome Beauty are fair to good, and London Pippin, Delicious and Dunns are fair. Other varieties, not so important from an export point of view, vary from medium to good. In isolated areas, crops are very light.

Pears.

Taking Pears as a whole, there are good crops, particularly the main export varieties, such as Beurre Bosc, Packham's Triumph, Williams Bon Chretien, Winter Nelis and Winter Cole. Josephines are from light to medium. Beurre Bosc appears to be carrying the heaviest crops. Other varieties are, on the whole, good.

As with Apples, black spot will take toll of Pears. Codlin moth will also cause some loss. The present indications point to a crop of approximately 1,100,000 cases.

Peaches.

Peaches have set a good crop; this applies to both canning and dessert kinds. Some varieties are carrying heavier crops than others. A normal crop of Peaches is 1,000,000 cases, and at the moment, it is estimated that the 1936 crop will equal this.

Apricots.

In looking over the Apricot or-

Orchardists!

ORGANITE

Fertilizer

Used in Great Britain, U.S.A., and on the Continent for more than 30 years.

Nitrogenous - Phosphatic - Rich in Humus

"ORGANITE" is a general purpose fertilizer which is new to Australia. It is exceptionally rich in Humus, and it contains Nitrogen and Phosphoric Acid. In "ORGANITE" the Nitrogen is in two forms, the inorganic form, which is immediately available for the use of the plant, and the organic form, which will last for years in the soil, forming a continuous supply of rich plant food.

Price and full particulars:

Manufactured by **ORGANITE Pty. Ltd.**

Telephone: J 2705. 444-450 SMITH ST., COLLINGWOOD, VICTORIA.

Victorian Fruit Export

London Report on 1935.

DURING the 1935 fresh fruit export season 842,656 packages of Apples, Pears and Plums were shipped from Victoria. Compared with the 1934 season, there was a decrease of 197,926 cases of Apples to 506,868 cases, but there was an increase of 103,395 packages of Pears to 319,602 packages, and of the equivalent of 10,529 half-cases of Plums to 16,186 packages.

London took 317,865 cases Apples, 306,089 cases Pears and the equivalent of 7,521 bushel cases of Plums, according to the report of Mr. S. R. McColl, commercial officer, and Mr. F. White, Trade Branch of the Agent-General's office in London, published in the November issue of the Victorian Journal of Agriculture.

Following the adverse criticism of Australian fruit, made recently by Sir Stanley Argyle, it is worthy of notice that the report included the statement that generally the Apple consignments turned out satisfactorily from the point of view of both condition and quality. The grading and packing of the fruit were of a uniformly high standard, and these factors, together with careful handling and transport in Victoria, were responsible for reducing the quantity of bruised fruit to a minimum. In comparison with last season's outturn, the all-round improvement was most marked. There was definite evidence that the majority of growers had complied with the minimum set in the regulations. Others definitely made very little attempt to color-grade their fruit, and in the case of Jonathans, particularly with the early shipments, lost the cream of the market by not doing so. It was generally recognised in the trade that buyers preferred Apples showing a maximum amount of color.

Too many Jonathans this season showed severe spray russet, which was frequently associated with a dull and shrivelled appearance. Again, some growers packed Apples as "fancy" when the color and quality warranted "extra fancy." By so doing they would enhance the reputation which Victorian fruit held. Only the best fruit brought the highest prices. The outstanding defects in a relatively small proportion of Victorian Apples during the season were bitter pit, dull and shrivelled appearance of Jonathans, excess black spot, excess spray russeting; Jonathans and Rome Beauty, below color requirements. Odd lots were affected with excess arsenical spray residue, fungal rot, mouldy core, and one small lot with brown heart. Cases came under notice where the packers had included inferior Apples in an otherwise good pack.

Growers should aim to raise the standard of their grading above the minimum, and approach as closely as possible to that set by their competitors. It was essential, that, in addition to color, Apples should land in a bright, fresh appearance, with a minimum of skin marking.

Pears were graded and packed satisfactorily, and mostly arrived in good condition.

Victorian Crop Prospects

(Continued.)

chards in most parts of the State, it can be seen that the crop is heavier than last year, and if all goes well, a full crop can be expected. The usual production of Apricots in Victoria is approximately 320,000 cases, and the promise this season is for 400,000 cases. Some trees are carrying heavy crops; in such instances, intelligent thinning out should be applied, otherwise the size may be disappointing and not up to the requirements of the canneries. Growers should take heed of this, particularly the Goulburn Valley growers; it is not yet too late to thin out canning varieties.

Plums are carrying a medium to light crop, and **berry fruits** are satisfactory.

Oranges.

The main varieties — Navel and Valencia—as well as the few other odd kinds, show promise for a good crop next year; even with the usual "drop" in December, it will be found that our production will be at least an average one, and probably a little higher.

Grapes.

Sultanas, Zante Currants and wine and table Grapes promise very well. Vine black spot has shown up a little, but most growers have worked hard to keep it in check. It may somewhat reduce the yield in a few small areas, nevertheless, good crops are expected to be harvested in all districts. The foregoing remarks give a fairly accurate summary of the position of fruit crops to date.

I would like to draw the attention of Apple and Pear growers to the fact that it will be necessary to use packing material, such as strawboard, on sides, top and bottom of the Pear cases, and on the top and bottom of Apple cases when the fruit is submitted for export. If this is not done the fruit will be rejected. Wood wool can be used, but it is not generally recommended. Corrugated strawboard is preferable.

PRIMARY PRODUCTS MARKETING ACT.

After negotiations between representatives of the Legislative Assembly and the Legislative Council in Victoria the Council finally agreed on the motion of Hon. W. J. Williamson, to accept the Assembly's clause on the question of voting to constitute a Marketing Board—i.e., 60 per cent. on a 60 per cent. poll. Voting, however, is compulsory.

Housewife: Now Jane, don't you ever let me catch you kissing the greengrocer again when he calls.

Jane: Lor, Madam, I'll try not to, but you try not to come out at such an inconvenient time.

Decrease in Victorian Fruits

Crop Statistics Lower.

ACCORDING to figures released by the Government Statist, the quantity of fresh fruit gathered for sale in the 1934-35 season dropped considerably in comparison with that of 1933-34. This also applied to berry fruits and nuts. Details supplied are as follows:—

	1933-34.	1934-35.
Apples . bushels	2,418,430	2,085,081
Pears	1,005,775	1,021,780
Quinces	54,836	42,452
Apricots	368,676	260,161
Cherries	42,347	30,712
Nectarines	14,490	13,610
Peaches	970,541	1,173,031
Plums	197,017	194,843
Prunes	70,019	70,968
Lemons	208,546	220,737
Oranges	658,461	639,325
Figs	19,184	16,228
Passion Fruit	29,514	22,326
Other Large Fruits	4,264	4,460
Total Large Fruits	6,062,100	5,759,714
Blackberries cwt.	1,322	968
Cape Gooseberries	179	74
Currants	328	350
Gooseberries	5,597	4,620
Loganberries	4,164	3,064
Mulberries	37	39
Raspberries	3,608	2,521
Strawberries	8,488	7,700
Total Berry Fruits	23,723	19,336
Almonds . . lbs.	102,250	94,808
Chestnuts	34,143	24,507
Hazels	868	1,178
Walnuts	56,919	37,928
Total Nuts	194,180	158,421

Trees and Plants.

Altogether 7,045 growers operated on 75,280 acres of orchards in 1931-32, against 6,685 growers on 74,763 acres in 1934-35. These statistics, as also those relating to the number of trees and plants represented, are compiled every three years, hence the comparison shown.

Large Fruit Trees—1931-32: Bearing 5,632,659, not bearing 1,503,245, total 7,135,904 as against 1934-35: Bearing 5,565,176, not bearing 1,420,416, total 6,985,592.

Small Fruit Trees.—1931-32: Bearing 6,711,046, not bearing 9,227, total 6,720,273. 1934-35: Bearing 5,272,676, not bearing 11,893, total 5,284,569.

Nuts.—1931-32: Bearing 37,151, not bearing 14,580, total 51,731. 1934-35: Bearing 38,594, not bearing 12,123, total 50,717.

APPRECIATION FROM SOUTH AUSTRALIA.

Mr. J. B. Randell, a member of the executive of the South Australian Fruit Marketing Association and a delegate to the Australian Apple and Pear Export Council, called in at the office of the "Fruit World and Market Grower" on his way back to Adelaide and expressed much appreciation of the paper in its new form. He states that the "Fruit World and Market Grower" is meeting the needs of those engaged in the industry, and the inclusion of feature subjects is appreciated.

VICTORIA.

Gippsland Fruit Marketing Association.

The executive committee of the Gippsland Fruit Marketing Association has expressed satisfaction at the decided improvement last season in the British market for Apples, the average price realised for Jonathans in London being 9/5 a case, equivalent to 5/6 on rails. Last season few growers shipped on consignment, most of the fruit being sold f.o.b., and for this prices were not high.

The following were appointed to the executive committee:—Messrs. R. Bailey (Narre Warren), L. Thomas (Bunyip), T. C. Whiteside (Officer), W. H. Brown (Beaconsfield Upper), F. Kennedy (Pakenham) and W. C. Harvie (Pakenham Upper). Mr. W. H. Carne was reappointed secretary, and Mr. A. C. Prendergast auditor.

Should Eat More Fruit.

Father: So sciatica troubled you in school to-day, Freddie? That is a funny thing for a boy to have.

Freddie: I didn't have it; I had to spell it.

LION BRAND.

Orchard Sprays

We manufacture a complete range of sprays for the orchardist, including:

ARSENATE OF LEAD (PASTE)
ARSENATE OF LEAD (POWDER)
LIME SULPHUR
WHITE OIL EMULSION
PREPARED RED OIL
BORDEAUX MIXTURE
BORDEAUX COMPOUND
SPREADERS (SPECIAL) CASEINATE
SPREADER (ORDINARY)
CALCIUM CASEINATE, ETC., ETC.

All sprays will be manufactured from the same formulae as previously used by Mr. S. R. Bushnell whilst associated with Jaques Pty. Ltd. Orchardists can therefore rely upon getting the best quality fruit sprays.

Write for Prices and Particulars to:

ORCHARD SPRAYS PTY. LTD., 549-51 Church Street, Richmond, Victoria, or—
CAMERON, SUTHERLAND & SEWARD PTY. LTD., Riverside Avenue, Sth. Melb., Vic.
SILBERT SHARP & BISHOP LTD., Rundle Street, Adelaide, South Australia

Victorian News and Notes

(Continued)

Research Committee.

Pure Food Act Administration.

A MEETING of the Research Committee of the V.F.M.A. was held at the Board Room, Commercial Travellers' Association, Melbourne, on October 11, 1935.

Mr. W. H. Carne presided: there were also present Messrs. C. H. Jost, F. Moore, J. W. Bailey, Geo. Douglas, W. A. Thiele, H. M. McLean, G. W. Brown, J. B. Mills, E. Russell, F. J. Andrew, W. P. Hutchinson; F. M. Read (Dept. of Agriculture), and R. E. Boardman, Secretary.

The minutes of the previous meeting were taken as read and confirmed.

Pure Food Act: Dr. C. R. Merrilees (Public Health Department), attended by request.

He said that with regard to: (1) **Fruit Squash,** the word crush or squash or similar word could not be used unless pure fruit only were used. No flavoring nor acids were permitted exept pure sugar. Fruit squash drinks moreover must be made from freshly-prepared fruit squash.

(2) **Fruit juices** were similar, except that the solid matter was strained. **Fruit cordials** were fruit juices or fruit squash with not more than 80 per cent. syrup made from pure sugar and water.

(3) **Flavored cordials** could be made from fruits or vegetable essences or extracts.

These could not be called "fruit" in any way, and no fruit design could be placed on labels. Such would include peppermint, cloves or drinks made from oil of lemon, or vegetable extracts.

(4) **Imitation Cordials:** Any cordial drink or similar article must have the word IMITATION in bold type immediately before or after the name of the beverage if any synthetic or imitation extract or flavor has been added.

(5) **Jams,** generally speaking, were not worth adulterating: though it had been noted that both turnips and potatoes had at one time been added. As raspberry pulp was normally of a "wishy washy" color, the red color was made up by using plum or gooseberry juice. Where two fruits were used as with apricot and apple, this had to be indicated, putting first the fruit which predominated.

With bottled fruit drinks no artificial flavorings were allowed, but as a preservative, seven grains of benzoic acid to the pint could be added.

The regulations under the Pure Foods Act were drawn up by the Food Standards Committee, which consisted of the Chief Health Officer, the Medical Officer of the City of Melbourne, a professor or teacher of chemistry, a professor or teacher of physiology in the University, the Director of Agriculture, and four experts nominated by the Executive Council: such as representatives of the Chamber of Commerce and the Chamber of Manufactures.

With regard to fruit drinks and ice blocks, it had to be remembered that children were the big consumers, hence the importance of the purity of the products.

Australia was a great fruit-growing country, continued Dr. Merrilees, and he was of the opinion that the public was not consuming sufficient of needed fruit. Children, instead of spending their pennies in buying an Orange or an Apple, most frequently purchased ice blocks. If these were made from pure fruit, this was quite a pleasing way of obtaining fruit juice.

If purporting to be "fruit" ice blocks, it must be made from pure fruit. Words or pictures suggesting the presence of fruit must not be used if the block contains any artificial flavor.

Breaches of the Act and regulations, however, were frequent, and were difficult to detect.

The Health Department was only a small one: there were only three medical officers and four inspectors available for the whole of the metropolitan area. Even when adulteration could be proved after analysis, it was not difficult for offenders to go ahead again with some other chemical addition which it might take years to detect.

At Washington, D.C., in America, there was a Bureau of Standards, with a well-equipped laboratory for discovering adulterators and prevaricators.

At the instance of Mr. J. B. Mills, a cordial vote of thanks was tendered to Dr. Merrilees.

SOUTH AUSTRALIA

MID-MURRAY NOTES.

(By Our Special Correspondent.)

THE OFFICIAL OPENING of ou wireless station took place at Barmera on November 15. In the absence of the Postmaster-General the ceremony was performed by the Hon. C. A. S. Hawker.

In the realms of broadcasting, this station is quite unique, as the controlling interests are in the hands of primary producers, which shows a great achievement in co-operation The following co-operative bodies have put up the main part of the capital required: Barmera Co-operative Packing Co. Ltd., Berri Branch of the Australian Dried Fruits Association, Berri Co-operative Packing Union Ltd., Cadell Branch A.D.F.A., Cadell Fruitpackers' Ltd. Co-operated Dried Fruit Sales, Kingston Co-operative Fruit Packing Union, Moorook Co-operative Ltd., Murray Citrus Growers' Association (Aust.) Ltd. Murray River Wholesale Co-op. Ltd., River Council A.D.F.A., Waikerie Co-operated Fruit Growers Ltd., Renmark Fruit Growers' Co-operated. Renmark Branch A.D.F.A., other shareholders being Laverys Piano Ltd. and the Central Methodist Mission.

Among the various speakers who took part in the proceedings were: the Hon. M. McIntosh (Minister of Irrigation), Mr. T. C. Stott (Member for the district), Mr. W. Queale (chairman of the company), Mr. Pinkerton (managing director 5RM), Mr. Ghash (manager 5DN), Messrs. C. S. Ruston and A. P. Wishart (directors representing river fruit interests).

Mr. Hawker, in the course of his opening remarks, congratulated the growers of dried fruits on their achievement, and said that "It was particularly gratifying to see that the dried fruits growers had achieved an efficiency that had enabled them to put some of their funds into such an enterprise, when one saw that the great publicity agencies of the press falling into the hands of a few, and broadcasting only too often into powerful city interests."

This station has already proved itself of some service to growers in the broadcasting of cultural practices, marketing reports and many other matters dealing with our organisation.

Growers of drying varieties of Pears are making a strong bid to obtain a clean sample of fruit this year. The Renmark Pear Growers' Association have been actively interested in the removal of all stray seedling trees, of which there are a great many in the district, and enforcing spraying regulations, so that one source of infection is removed.

Up to the present time only one definite brood has been identified, and the maximum flight of this brood occurred about October 26, and a warning was issued (through our wireless station, 5RM, Murray Heights) for growers to spray as early as possible after that date. It is sometimes difficult to spray just at the proper time owing to the irrigations coming at awkward times, but most of the larger Pear growers were able to make satisfactory arrangements for this spraying.

The State Dried Fruit Board election will soon take place. For the past ten years the dried fruits boards of the various States and Commonwealth Control Board have been working with the utmost harmony, and it would be a calamity if legislative control were undermined by virtue of a disgruntled section obtaining control of the South Australian State board.

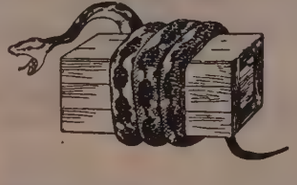
The Block E branch of the Agricultural Bureau held a meeting on November 12 for the purpose of discussing the matter of irrigation, seepage, and the relationship to the lock level in raising the water table. Mr. Horace Newstead occupied the chair. Mr. J. Tolley, representing the Irrigation Trust, and Mr. S. C. Gordon of the Department of Lands, were in attendance to help in the discussion.

It is generally believed by growers that the high pool level is materially having a bearing on the rising water table in the area. Mr. Gordon thought that the main cause of a rise in the water table was chiefly due to the use of too much irrigation water, and he advised them to use less water. The high river level, he said, might, in a small way, prevent a certain amount of natural drainage, but the water table trouble was aggravated by heavy waterings. The average amount of water used in the past eight years per irrigation in the Berri areas was as follows:—

	Inches.
1926-27 irrigating season	8.00
1927-28 "	7.15
1928-29 "	7.55
1929-30 "	7.16
1930-31 "	7.37
1931-32 "	7.25
1932-33 "	6.67
1933-34 "	6.66
1934-35 "	6.48

Although there has been a gradual

PYTHON



Latest Electric Machine Mounted as a Complete Mobile Unit

EFFICIENCY The machine is automatic, giving a uniformity of tension with every wire straight around the case: thus each wire carries an equal proportion of the load. **No loose wires irrespective of the operators.**

SPEED —— Ties from 400 to 600 wires per hour.

ECONOMY The low cost of wire. The small off-cut or waste of wire, which is 1¾ inches and which cannot be varied however loosely the wire is placed round the case.

The complete unit will be leased at a low annual rental which embodies service and maintenance, with no tags as to the purchase of wire.

Further particulars on application to:

Python Wire Strapping Pty. Ltd.

21 HOWARD ST., NORTH MELBOURNE. Phone: F 2708.

42-44 MEAGHER ST., CHIPPENDALE, SYDNEY Phone: MA 4392.

South Australian Agents: GOLLIN & CO. PTY. LTD., 110 North Terrace, Adelaide.

FRUITGROWERS . . .

Consign Your Fruit

(Apples and Pears)

through

A. J. STEWART

Fruit Exporter,

379 Collins Street, Melbourne

to old-established Brokers of the highest repute in the United Kingdom and Continent.

Highest Prices Obtained— Prompt Returns & Settlement.

Cases and all packing materials supplied at lowest possible prices.

Cash Advances Against Consignments.

Enquiries Solicited 'Phone: M 513

Reference: E.S. & A. Bank, Head Office, Collins St., Melbourne.

SOUTH AUSTRALIA—(Continued).

decline in the amount of water used in the years under review, there is room for a considerable reduction in this amount.

The position is aggravated to some extent by the layout of many blocks, and we find long furrow runs on porous soils, the top part of which becomes over-irrigated before the bottom section gets sufficient water. Sometimes the water logging commences at the bottom of a slope, owing to a clay stratum commencing at some depth on the top end and "petering" out at the bottom.

Drainage goes hand in hand with irrigation, but it is not always possible to tile drain sections of our box flat lands, and the only way to get rid of the surplus sub-soil water is by means of growing plants. Tick Beans have shown themselves capable of transpiring large quantities of water during winter and early spring, while Lucerne will carry on the good work during the summer.

Growers are reluctant to plant Lucerne between rows of vines because of the fear of it spreading over the block, but these fears are groundless if it is not allowed to seed. I have seen Lucerne grown in this way which has been kept cut, and has not spread beyond the planted area in three years. The planting of trees on the border of blocks is also a possible way of absorbing water. The practice of using plants and getting rid of surplus sub-soil water through transpiration is as yet in its infancy, and I can foresee the day when it will become general.—"Nemo."

Potato growers' interests in South Australia will be forwarded by a new Association being formed. It will be registered as the Adelaide Plains and Hills Potato Association. A strong committee is at work.

TIPPING ZANTE CURRANTS.

"J.S.", Kingston, S. Aust., writes:—"What are the advantages, if any, to be gained from topping the Zante Currants during the growing season?"

Answer (by "Nemo"): The advantage of tipping Currants comes chiefly by virtue of a certain checking effect on extra vigorous vines and preventing them to go too much to wood, which does not allow sunlight to penetrate to the bunches. When tipping is done prior to flowering, it is found that backward bunches are forced ahead so that flowering is more even, and this evenness is carried on to ripening time and a more uniform sample of fruit is produced.

Tipping must not be confused with hard cutting back. Many growers cut many feet of growth away from their vines and call it topping. There is never any need for more than a few inches of growth to be removed, and this only when vines are extremely vigorous. There is no need to tip vines of only moderate growth.

Sulphate of Ammonia

..IS..

To the CITRUS GROWER
What Super is to the
Wheatgrower—

AN ESSENTIAL

CITRUS TREES must have plenty of Nitrogen—
Sulphate of Ammonia supplies it in
THE CHEAPEST AND MOST EFFECTIVE FORM

See that the Mixture you apply in the Spring contains its Nitrogen in this form of Ammonia.

The **2 : 2 : 1** *is Best.*

ORDER **2 : 2 : 1** NOW—All Fertiliser Cos. and Agents.

H 12/35

South Australia.

7th Annual Meeting S.A.F.M. Association

WITH Mr. H. J. Bishop, President, in the chair, the 7th annual meeting of the South Australian Fruit Marketing Association Incorporated, made further history; 22 members of the Executive Committee and about 35 members attended. Minutes of the 6th annual meeting, held on November 2, 1934, were read and confirmed.

Annual Report.

The President's annual report stated that continual improvement was evident in the fruit industry in South Australia, and packing and marketing conditions had been satisfactory. The prospects of trade in Europe were not encouraging, and U.S.A. and the Argentine would have more fruit available for export this year than last.

The need for furthering local sales of Apples was urgent, and committees were being formed in the various States to increase local consumption in Australia. This matter had been considered seriously at the recent Conference of the Apple and Pear Export Council in Hobart, and all were impressed with the necessity of increasing local sales.

Co-operation.

Following the President's thanks to the Executive Committee for their loyal support during the past year, it was resolved to amend the rules of the Association to provide for affiliation with any organisation in S.A. or any other State having objects similar to those of their Association.

Research Work.

The report of the Research Subcommittee revealed consistent activity. During the year discussions were had upon Codlin Moth Control, Manurial Experiments, Transport Board Regulations, Increasing Local Consumption of Fruit, Regulations under the Fruit and Vegetable Grading Act, and the Sale of Fruit Act, Non-arsenical Sprays and Spraying Materials. Experiments had been conducted by the Waite Institute on Thrips and Fruit Drinks and Field Days had been arranged.

Committees.

The President, Mr. H. J. Bishop, was unanimously re-elected. Mr. T. Playford, M.P., was re-elected as Patron, and the Committee was re-elected as follows: Shippers, Messrs. G. A. W. Pope, P. R. B. Searcy, R. S. McDougall and F. B. James. Growers: Messrs. H. N. Wicks, A. O. Petersen, M. G. Basey, J. S. Hammatt, J. B. Randell and R. O. Knappstein; an Auxiliary Committee of five Shippers and 13 Growers was also elected. A Research Committee of 21 was appointed, and all District Delegates were re-elected.

Fruit Marketing in U.K.

The Premier of South Australia, Hon. Mr. Butler, addressed the conference upon Fruit Marketing in the United Kingdom and on the Continent.

Quota Allocation.

Since the quota of 233,000 cases of Apples allocated to South Australia for the coming season was considered to be inadequate, the following resolution was adopted:

"That this general meeting of the S.A. Fruit Marketing Assn. Incorp. applies for a reconsideration of the quota allocated. This season's estimated crop provides an opportunity for part recovery from the effect of the past disastrous season, but the quota of 233,000 cases so restricts that recovery and is such a menace to the future of the industry that an increase to 300,000 cases is vitally necessary."

1936 Apple and Pear Conference.

The President announced that the next Conference of the Apple and Pear Export Council will be held in Adelaide during the Centenary Celebrations and the Association would be pleased to reciprocate the hospitality extended to its delegates by other interstate delegates during recent years.

S.A. FRUITGROWERS AND MARKET GARDENERS' ASSOCIATION.

AT the last annual meeting of the above Association, Mr. J. B. Randell, was elected President. Mr. Randell has served on the Executive Committee for some time, and his wise counsel has been appreciated.

The Attorney-General, Hon. W. J. Denny attended and assured the Association that the S.A. Government desires to assist primary producers in every way possible. The meeting urged the adoption of an orchard registration fee for organising work, and the Government was asked to pass the necessary legislation.

Amongst the many matters being considered by the Association, in the interests of the industry, may be quoted: analysis of all fruit drinks; the formation of new branches at Angaston and Lyndoch; processing of various fruits on behalf of growers; supplying evidence before the Tariff Board regarding the Almond industry; protest against the export of blood manure needed in the State; railways urged to arrange for the sale of fruit drinks at stations; railways urged to supply more louvred trucks for fruit transport, and many other matters which aimed at service to the industry.

Fruit Trees & Fruit Tree Stocks

Splendid Stock of Healthy Plants Available.

APPLES, PEACHES, PEARS, PLUMS, APRICOTS, CITRUS, ETC., PACKED AND DESPATCHED TO ALL PARTS OF THE WORLD.

Overseas Orders receive careful and prompt attention.

Catalogue printed. Code A.B.C., 5th Ed.

C. A. Nobelius & Sons Pty. Ltd.

Gembrook Nurseries, EMERALD, VICTORIA

'Phone: Ringwood 171.

QUEENSLAND NOTES

Water-Core in Apples

Experiments in Queensland

FROM the report released by Mr. H. S. Barnes, Director of Fruit Culture in the Queensland Department of Agriculture, it is learned that the experiment, recently conducted under the supervision of Mr. J. H. Gregory, Instructor in Fruit Packing in that State, which aimed at determining the action of cold storage upon Apples affected with water-core, showed some valuable results.

It was endeavored to discover if storage would assist in reducing the damage to the fruit by this infection and two forms of storage were tried upon three varieties of Apples, all from the same district.

The Test Adopted.

So that comparable conditions might make the test of the most value, the fruit used all came from the Stanthorpe district. Three varieties were used, i.e., Granny Smith, Delicious and Dunns.

Condition of Fruit at Commencement of Test.

Specimens of fruit examined before storage showed the water-core sections, on being cut, to be transparent and practically colorless. With the exception of the traces of water-core, which were discernible beneath the skin, the skin color in each case was natural to the variety. There was no trace of greasiness on the skins of the Granny Smith and Delicious, but the Dunns showed signs of this, possibly owing to the lateness of the season.

Storage: Specimens of these varieties of Apples for the test were obtained in the Stanthorpe district. Some were placed in common storage in a cool place beneath a house at Stanthorpe on March 28, 1935, while the remainder was placed in cold storage at Messrs. Birt's Cold Stores, Brisbane, on March 29, 1935. In each case samples of unaffected good-quality fruit were enclosed as checks.

Temperatures: The fruit held in common storage beneath the house was kept for a period of twenty-one days at temperatures varying up to a maximum of 76 degrees Fahr. The cold-stored fruit remained in storage at a temperature of from 34 to 35 degrees Fahr. for a period of twenty-two weeks and a day. At the end of the test period the following conditions were observed under the respective methods.

Common Storage, 21 Days.

Dunns: In the **sound specimens** the skin became yellow and greasy, but the flesh remained white and juicy with good flavor. In the **water-core specimens** the skin color became dull in appearance, the flesh spongy, brown and dry, and was insipid in flavor and the fruit appeared to be on the verge of breakdown.

Delicious: Sound specimens slightly greasy, ground color deepened in yellow, flesh clear, flavor fair, but texture slightly mealy. **Water-core specimens** slightly greasy but dull and darkened, flesh dry and mealy, brownish and tasteless.

Granny Smith: Sound specimens in excellent condition, skin greasy, color unchanged, fruit juicy, flesh full-flavored. **Water-core specimens:** (slightly affected) signs of water-core disappeared and fruit comparable with sound specimens. (Badly affected) trouble unchanged, skin dull, color unchanged, slight sign of greasiness.

Cold Storage, 155 Days.

Dunns: Sound specimens, yellow color, flesh firm, juicy and attractive, skin greasy. **Water-core specimens** skin dull yellow to brownish, skin greasy, flesh mealy, dull, brownish, soft, flavor unattractive.

Delicious: Sound specimens good condition, bright and juicy, but showed storage effects, flesh white, flavor good, large specimens mealy. **Water-core specimens** skin dull, unattractive, flesh soft, brown, flavorless, fruit dead appearance.

Granny Smith: Sound specimens excellent condition, flavor good, appearance bright, flesh juicy. **Water-core specimens** no improvement in skin, water-core affection decreased greatly. Slightly affected has completely disappeared and badly affected Apples showed brownish development in the flesh with a dry texture and poor flavor.

Storage Not the Answer.

From these observations it will be seen that either cold storage or common storage has not any great control towards eliminating water-core after the fruit has been harvested. The best course would appear to be to leave the fruit hang on the trees and so give it a chance to grow out of the trouble. Field observations have shown that fruit not unduly affected will grow out of the trouble in from two to three weeks under normal growing conditions. It is hoped to conduct further tests with various varieties during the next Stanthorpe season.

SELLING QUEENSLAND PINE-APPLES IN THE UNITED KINGDOM.

Mr. Ranger's Report.

AFTER an absence of eight months, Mr. W. Ranger, manager of the Committee of Direction, recently returned to Australia, and reported that marketing arrangements for Queensland Pineapples have been satisfactorily made in the United Kingdom, according to the "Queensland Producer."

In an interview, Mr. Ranger stated that part of his mission was to sell Queensland canned Pineapples, and he had made a full survey of the English market, and believed that there is a definite opening for Queensland fruit. About 90 per cent. of canned Pineapples imported into the United Kingdom, he discovered, came from Malaya, and the remaining 10 per cent. from Hawaii, the latter being of a high grade.

"By reason of British preference, Queensland Pineapples have an advantage over the Hawaii fruit but, as the latter have been established over a long period it will not be easy to displace them from the market. Our Queensland Pineapples are of very good quality, and the earlier difficulties have been overcome," he stated.

Mr. Ranger said that his visit to Scotland convinced him that the people of Glasgow desired to do business directly with Australia, and were anxious for Queensland produce.

Comprehensive Distribution Scheme.

"I have arranged a comprehensive scheme of distribution in the United Kingdom, which should be advantageous to all," he concluded. "The publicity department of Australia House is doing good work. Its representatives have visited every part of the United Kingdom, studying local conditions and obtaining buyers' viewpoints on Australian goods. There are also cinema demonstrations and lectures in the bigger centres, and the department frequently arranges demonstrations in stores for the purpose of popularising Australian goods."

"Willow" Brand Woodwool

Prevents the Bruising of Fruit

OVERSEAS RECEIVERS SPECIALLY RECOMMEND THE USE OF "WILLOW" BRAND WOODWOOL ON THE TOPS AND BOTTOMS OF FRUIT CASES.

"Willow" Brand Woodwool is made in Australia, being treated under a patent process, and securely packed in Bales containing 1 cwt.

View of a portion of the Willow Products Co.'s factory at Launceston, Tas., showing raw material ready to be treated

Special Qualities Suitable for Fruit Packing

FRUITGROWERS! Use "Willow" Brand Woodwool and ensure the safe arrival of your Fruit on the Home Market

Special types of Woodwool also manufactured for the packing of Grapes, Tropical Fruits, Confectionery, Eggs, Crockery and Ironmongery, and all heavy goods.

— Special Grades for Toy Manufacturers and Upholstering. —

SOLE MANUFACTURERS OF "WILLOW" BRAND PATENT PROCESSED WOODWOOL.

Willow Products Co.

Newstead, Launceston,

TASMANIA

Western Australia

SOIL INVESTIGATIONS — DUMP CASE PREFERRED TO CANADIAN — SEASON'S PROSPECTS EXCELLENT FOR BIG CROP — SPRAYING WITH LEAD ARSENATE AND FLOUR — EXPORT FRUIT INSPECTION — LONDON REPORT SPEAKS FAVORABLY OF POLICY OF THE AUSTRALIAN APPLE AND PEAR EXPORT COUNCIL.

(By Our Bridgetown Correspondent.)

Soil Investigations.

When the Plant Nutrition Officer of the Department of Agriculture (Dr. L. J. H. Teakle) attended the annual fruitgrowers' conference at Bridgetown he made preliminary investigations on several orchards concerning the cessation of growth of some leaders commonly called "die-back." Soils in these orchards were tested to a depth of six feet and analysed to ascertain if they contained salt. The results were negative in this respect, both in heavy red and sandy soils. A promise was given the growers that an officer would be detailed to make careful investigations, and since that date further tests have been made, and it is expected that in the near future an officer will take up the work mentioned.

Dump Case v. Canadian Cases.

The District Inspector for Bridgetown (Mr. A. Flintoff) decided, during the past fruit export season, to send forward for export a fair percentage of his crop in Canadian cases and the balance in the usual dump case cut from local hardwoods. This was for the purpose of ascertaining a variation or otherwise in prices received overseas. The Apples were packed by the same packer in both types of cases, and approximately 50 per cent. of each was packed from lines handled in this way. The final returns from overseas are now to hand, and in a report to the Bridgetown Fruitgrowers' Association, Mr. Flintoff stated that he had checked the returns very carefully, and found that there was not one penny difference in the prices realised. In future he intended using the dump case only, because it was not only easier to handle and pack, but the price was approximately 9d. per case, as against 1/- for the Canadian case.

The Season's Prospects.

Almost right throughout the State Apple trees are white with blossom at the present moment, which appears extraordinary following the good crop of last season. Despite this particularly heavy blossoming, many growers have expressed the view that the setting will not be heavy, and in support of this opinion say that similar blossoms, following a heavy season, have been seen before, and settings have been light. Then, again, October has been an extraordinary month, and very few fine days have been experienced, consequently bees have not been very busy in serving the orchardist in the direction of pollination. In most of the fruitgrowing districts over four inches of rain have fallen in October, and very little cultivation has been possible.

Due to the wet conditions operating, thrips have only been seen by one or two growers, almost every orchardist reporting total absence of this pest from their orchards.

Orchard Pest Control.

The advantage of spraying in early November to check the activities of red mite and looper caterpillar have been stressed at meetings of fruitgrowers, and those who tried out the arsenate of lead and flour spray with such good results last season are again operating in this direction this season; many others intend following this lead. The spray in question is 3 lbs. of arsenate of lead, 3 lbs. of flour to 40 gallons of water.

Export Fruit Inspection.

For some years the Superintendent of Horticulture (Mr. Geo. Wickens) has been opposed to local inspection of export fruit at Bridgetown, he being of opinion that the fruit after inspection was carried through the heat of the day to Fremantle, and should not be sent away without a further inspection. This has been overcome by night conveyance of fruit, which now leaves Bridgetown at 6 p.m., and arrived on the wharf at Fremantle at 9 a.m. next morning.

Last season Westralian Farmers Ltd. erected their first central packing shed at Bridgetown, and rumors are now current that Messrs. Paterson & Co. will follow with a similar shed for the coming season.

The following interesting report was recently submitted to growers, and covers the past season's operations: — "We have surveyed results. and would comment as follows:—

(1) A favorable season.

(2) Steady mid-season values, with strong values for late varieties, which should give tremendous encouragement to the industry.

(3) A marked improvement in quality, grading and general get-up, which has favorably impressed buyers abroad.

The outlook last November was by no means encouraging, and when it became definitely known that Germany could not operate to any serious extent, the Apple and Pear Council determined to negotiate with New Zealand with a view to limiting export to the United Kingdom market so as to prevent overloading, with known disastrous results. Growers know well the beneficial results that followed this course.

The season has been remarkable for many reasons, prices having been maintained at steady values, and finished very strong with the late shipments. It has been claimed by some that they could prophesy the strength of the market as far back as last January. A careful analysis of all factors—some extremely favorable for the Australian grower—is, however, most interesting and useful as a record:

(a) In the first place the trade in the United Kingdom was considerably heartened by the knowledge that shipments were to be reduced to 4,500,000 boxes of Apples from Australia and New Zealand.

(b) The introduction of color grading and improved grading standards was of inestimable benefit.

(c) A generally much improved and better spread shipping programme was arranged, resulting in the steady arrival at U.K. ports, thereby eliminating "en masse" arrivals, which had occurred with disastrous results in previous seasons—frequently the result of large cargoes carried on chartered ships, which were avoided in this season's programme.

(d) Severe weather in January caused a serious shortage in the Spanish Orange crop, which relieved the market of a glut of this fruit, and prepared a more buoyant position for the Australian Apples which were to arrive shortly after.

(e) American and Canadian supplies to both U.K. and the Continent were several millions of cases below last year and, in addition, American late shipments were out of the way earlier than usual, leaving the market fairly clear for the first Australian arrivals, which had the effect of establishing steady values from the beginning, and, coupled with the improved quality, a brighter tone resulted and carried through the season.

(f) Added to this an unusually severe frost was experienced in England and Wales during the week ended May 18, resulting in intense damage to Strawberries, Cherries, berry crops and soft fruits. This damage, serious indeed for the home grower, proved of tremendous benefit to Australian Apples, and the June market (always a weak one, owing to the heavy supply of Strawberries and soft fruits which pour into the U.K. markets), moved up strongly, and maintained high values to the middle of August. The frost also retarded the early English Apples.

(g) Last, by no means least, is a word of praise due to the growers of Western Australia, who have, by their united determination, improved their standard of quality in one season and have, in our opinion, reinstated W.A. Apples to the premier position in the oversea markets, an achievement which, twelve months ago, it was felt would take several seasons to accomplish.

It must also be granted that W.A. had very favorable conditions under which to produce a crop, but this notwithstanding, we cannot recall having handled a better export sample, and sincerely congratulate the growers and the industry on what it has done. We have received some very encouraging letters from abroad, both from private citizens and traders, complimenting W.A. on the excellence of its Apples this season, which is a sure indication that satisfaction has been general.

As to the future outlook, we hesitate to offer an opinion, but several points stand out very prominently—(1) The present standard of quality should not be reduced in any way. It should be improved upon, and if any alterations to regulations are contemplated, it should be in the direction of tightening not relaxing.

(2) It seems apparent that shipments from Australia and New Zealand and to the United Kingdom market will in normal circumstances be limited to meet the consumptive power of that market, and particularly in view of W.A's. increasing production. We must endeavour to establish a higher quota for future seasons.

(3) We must endeavour to expand our trade to fresh markets.

:: :: :: ::

Near Eastern and Continental countries are being given very careful attention, and at the present time the Australian Minister in control of trade treaties (Sir Henry Gullett) is on the Continent, and it is to be hoped that he will formulate a trading plan with Germany, to enable our Apples to enter that country in a greater quantity.

Bridgetown, 1/11/35.

WEST AUSTRALIAN CROP PROSPECTS.

Apples. Reports to hand from the main fruitgrowing districts predict that there should be another excellent crop next season in spite of the general expectation that a light crop follows a heavy one. Last year the crop was heavy in nearly all varieties.

Although it is a little early yet to prophesy regarding Dunns, the probability is that they will set well. Other varieties bloomed well and set excellently.

Pears. A heavy crop is anticipated for all varieties except Kieffers, which have unexpectedly set lightly. This, however, will not materially affect export.

Thrips. Climatic conditions were such that this pest had little opportunity of breeding, and the favorable settled weather now makes orchards comparatively safe from this trouble.

Stone Fruits. Indications at present suggest that the stone fruit crop will be large. Excessive fruit has been shed, leaving little need for thinning out. Altogether, the prospects for stone fruits are good.

W.A. APPLE CROP.

About the Same as Last Year.

The latest reports indicate that the following is the condition of the Apple crop in Western Australia.

Crop generally good, probably the same as last year, **Cleos.**, very heavy; **Granny Smith**, heavy; **Rokewood**, good; **Dunn's**, patchy; **Jonathan and Yates**, fair to good.

In Preparing Your Bordeaux Sprays Use . . .

E S A BLUESTONE

— Manufactured by —

THE ELECTROLYTIC REFINING & SMELTING COMPANY OF AUSTRALIA LTD.

PORT KEMBLA, NEW SOUTH WALES.

The Right Material for Plant Disease Prevention and Control

GUARANTEED 99% PURITY

GRADES—Mixed Crystals, Fines, Granulated (Snow), Packed in Suitable Containers for Growers' Requirements.

Agents for All States: ELDER SMITH & COMPANY LIMITED, All Capital Cities.

BOOKLET—"Better Yields by Spraying with E S A Bluestone" obtainable on application to Elder Smith & Co. Ltd.

Citrus Growers!

For greatest elimination of

SCALE,

spray now with

SHELL

"WHITESPRAY"

THE efficiency of this Oil has been increased to a point far beyond anything previously achieved.

It possesses to the highest degree the four essentials: Volatility, Viscosity, Oscillation, and the power of spreading and breaking evenly.

This season, use Shell Whitespray.

PRODUCT OF THE SHELL COMPANY OF AUSTRALIA LIMITED

S.O.4–D.

Tasmania.

PROLIFIC TASMANIAN ORCHARD

WALKER'S, AT LALLA

One and a Half Million Scions Used in Re-working.

THE REWORKING OF FRUIT TREES has been successfully conducted at the 60 acre orchard of F. Walker & Sons, at Lalla, Northern Tasmania. This Lalla orchard is favorably known, for here was developed the famous "Lalla" Apple, a red Delicious.

In the reworking of Apple trees, no less than 1,500,000 scions have been used since the work commenced a few years ago.

Recently, this orchard was inspected by some of the delegates to the Hobart Conference of the Australian Apple and Pear Export Council. Included in the party were Messrs. W. P. Hutchinson, of Somerville, Vic., a member of the Executive of the Victorian Fruit Marketing Association; K. Weeding (S. J. Perry & Co.), and R. E. Boardman ("Fruit World"); Mr. Frank Walker, Senr., and Mr. W. A. Walker showed the visitors over the property.

In the reworking process, the principal varieties used are Granny Smith and Democrat.

A photo. was taken of a Pomme de Neige Apple tree on which 1,400 scions had been used in changing over to Granny Smith. The work was done in 1933 and in 1935, no less than 30 bushels of Grannies were picked. Previously the best crop of Pomme was 18 cases. It is also noted that P.D.N. has a tendency, like London Pippin, to produce small fruit as the trees get older.

Bark grafting in spring is the method adopted, but a chisel is not now used. Various methods have been tried, but the best—and incidentally the quickest—is simply that of making an incision into the bark with a grafting knife, pressing in the scion firmly with the fingers and sealing with paraffin wax. A tack or "tingle" is used to give added strength. The paraffin wax is fairly "stiff" preparation.

The method of performing the reworking was noted with much interest by the visitors. Trees in full leaf were "poled," a saw being used to remove the lateral branches. As soon as the limbs were bared by the man with the saw, the men came with budding knives, made the incisions, inserted the scions, tacking them down and then sealing them with the grafting wax. The work was done rapidly but skilfully. Mr. Walker pointed out the necessity for completing the reworking of a tree in one operation — or in one season — as against the idea of doing half the tree one year and half the year following. When the latter plan was used it was found that the strength of the tree had gone into the grafts put in during the past season, and those put in the year following never caught up.

Trees of the Staymans variety were noted being worked over to Crofton. King Davids, London Pippins and Statesman were being changed to Granny Smith. The work is done in the "off" year.

The crop in the 1936 season is expected to be about 18,000 to 19,000 cases.

Democrat trees have been planted fairly closely together—20 x 10—in order to induce the production of smaller type fruit.

The splendid growth of the Lalla trees was quite noticeable. They made better trees than the Delicious variety.

It was also of interest to observe some Stayman trees which had not been thriving: but when reworked to Democrat they made splendid growth —4 ft. in the first year.

:: :: ::

Pears are also grown, but not to any large extent, the varieties including B. Bosc, D'Anjou, Winter Cole, Glou Morceau, Williams and Doyenne du Comice. Some reworking has been done here, too, changing Gansells to Comice, and Conference to Bosc. The coming crop of Pears is estimated at about 1,500 cases.

:: :: ::

Lalla Railway Station is close to the orchard. Fruit can be promptly loaded into the trucks and delivered at Hobart the same day.

:: :: ::

The entrance to this orchard is particularly charming. Along the drive Pear trees have been planted, and these have been trained to grow on an over-arching frame work. The variety was originally Kieffer, but the trees have been changed to Beurre Bosc. Whether in bloom, in leaf, in fruit, or in the autumn, this Pear-arch drive is a delight.

Yet another feature of beauty has been added—the planting of Rhododendrons of various colors along the drive.

At the time of our visit, these were out in bloom—pink, red, white: the bloom of the white variety — fragrantissimum—yielded its rare exotic perfume.

Another pleasing feature at this orchard was the area devoted to the growing of ornamental shrubs—beautiful and of commercial value.

Left: F. Walker's orchard, Lalla, Tasmania, showing Apple tree stripped and reworked.
Right: Apple tree at the same orchard in process of being reworked. Note saw for removing original growth prior to inserting scions.

HOBART ROYAL SHOW

Fruit and Implements Exhibits.

The Orient Cup, presented for competition in Apples packed for export, was won this year by Messrs. W. H. & D. F. Calvert. Each entry consisted of four cases, two of which were exported to London, and judged upon arrival, and two retained in cool storage in Tasmania. The grower aggregating the highest points is declared the winner.

Messrs. P. H. Thomas, T. D. Raphael and A. S. Brennan, of the Department of Agriculture, were the judges of the retained cases, and reported that the packing was of a higher standard than usual, and the majority of the entries were packed in the Canadian type of case.

The points in the first three places were in the same order in both London and Hobart, though under different judges, which indicates the uniformity of the packs. The aggregate points scored were:—

	London Points	Hobart Points	Points.
W. H. and D. F. Calvert	92½	91	183½
H. C. Wright . .	91	89	180
J. Hewitt . . .	89	87	176
B. Foster	84	87	171

A very fine display of bottled fruits and vegetables was seen in the Industrial Hall, and a small but tempting entry of dried fruits was received.

Trade Exhibits.

In the machinery and implements section several good displays of orchard working machinery were on view.

Roberts & Co. Ltd., agents for the "Lightning" Fruit Grader and Sunshine cultivating implements, besides General Motors cars and trucks,

A. G. Webster & Sons Ltd. had an attractive and comprehensive exhibit of orchard cultivating implements, including the new Lister Diesel engine and John Deere Tractors. A Case planing machine excited favorable comment, as also did power spray outfits and pastoralists' equipment.

Gerrard Wire Tying Machines represented by Debnams, had hand-power case tying machines and accessories.

The Bell Apple Grader, a Tasmanian product, under the agency of the inventor, Mr. Bell, and Everett Bros.

Robt. Nettlefold Pty. Ltd., display of International and McCormick-Deering farm implements.

Howard Rotary Hoe and Harvey Fruit Graders, under the local agency of Max Geeves Pty. Ltd., both drew much attention from visiting orchardists. The Petty Plough was also part of this agent's exhibit.

Barnett Bros. Pty. Ltd., as agents for Mitchell's cultivating machinery, as well as grass sowing and reaping machines and the MV flame thrower. They also showed several kinds of Gibbins' ploughs and cultivators suitable for orchard work, and Lister cream separators.

Commonwealth Woodware Products Pty. Ltd. had a section devoted to the display of 3-ply fruit cases made from Tasmanian hardwood. These cases are claimed to be superior to single-ply cases, are pressed with waterproof glue and retain the natural color of the timber, with stains eliminated. They sell at the same price as ordinary cases, and have found favor in the four years since their introduction.

WYETT'S 3 AND 4 STAR HAYSTACK COVERS

FOR COVERING HAY, WOOL, WHEAT, LUCERNE, ETC. THE CHEAPEST COVER PROCURABLE. NOW FREE OF SALES TAX.

18,000 IN USE, GIVING EXCELLENT SERVICE!

NEW SEASON'S PRICES:

Size.	3-Star.	4-Star.
12 x 20ft.	£1 18 6	£2 16 6
12 x 24ft.	2 5 0	3 7 6
12 x 27ft.	2 13 0	3 13 6
12 x 30ft.	2 17 6	4 2 0
12 x 33ft.	3 2 0	4 9 6
18 x 20ft.	2 19 0	4 2 6
18 x 24ft.	3 13 6	4 19 6
18 x 27ft.	3 19 6	5 10 0
18 x 30ft.	4 6 0	6 1 0
18 x 33ft.	4 13 0	6 14 6
21 x 30ft.	4 19 6	6 19 6
21 x 33ft.	5 9 6	7 12 0
22 x 24ft.	4 10 6	6 3 6

Size 22 x 24ft. Waggon size only includes ropes. Other sizes, ropes 3/6 per cover extra if required.

CORIO SHEEP RUGS

RUG YOUR SHEEP AND INCREASE YOUR PROFITS

Made in four sizes from strong, serviceable material.

Prices:

No. 1 (Lambs) . . 15/3 doz.
No. 2 . . . . . 16/– doz.
No. 3 . . . . . 16/6 doz.
No. 4 . . . . . 17/– doz.

Made by

WYETT MANUFACTURING CO. PTY. LTD.
GEELONG, VIC.

For the Majority

FEW are so fortunately placed that the future holds no problems and since it is apparent that the majority of people receive moderate incomes, it is just as obvious that the majority can attain financial independence only by systematic saving.

After all, some sacrifice, some self-discipline is unavoidable if anything worth while is to be gained.

The Savings Account provides a safe, profitable and convenient method.

Commonwealth Savings Bank of Australia

(Guaranteed by the Commonwealth Government.)

TASMANIA

Tomato Growing . . .

Manuring — Pruning — Diseases

OWING to the varied uses to which the fruit can be put, Tomato culture in Tasmania is steadily increasing in those districts which have been found suitable for its development, says Mr. P. H. Thomas, Chief Horticulturist of the Tasmanian Department of Agriculture.

One part of an article prepared by Mr. Thomas for the guidance of Tomato growers contains information as to soils, preparation, cultivation, protection, etc., and includes the following excerpts:—

Manuring and Cultivation.

At the time of planting it is usual to apply about 3 oz. of superphosphate per plant, which is mixed into the soil at the position where the young plant is set. The disposition of the plants will, of course, be determined by the system of training that is adopted. Where free setting is to be encouraged the rows should be at least four feet wide and the plants 2-3 ft. apart. Staked plantations can be set much closer, the rows being 3 ft. wide and the plants 18 in. apart. The latter, if possible, should run from north to south so as to receive an even amount of sunshine.

Early in the season when the first traces of flowers are forming, a light dressing of nitrate of soda is applied. This will assist toward the early ripening of the crop, but must not be put on in excess, otherwise the growth will be forced and rank. About one ounce per plant is sufficient, the fertiliser being scarified into the soil between the rows.

As soon as the plants have become established and commence to develop it is necessary to devote constant attention to the soil cultivation so as to conserve the moisture. In the case of unstaked plantations cultivation can only be conducted over a limited period as the runners will soon cover the greater portion of the spaces between the rows.

Pruning and Staking.

Tomatoes may be trained on a trellis or staked and developed on the "free" system. When the plants are about a foot high stakes about 4 ft. 6 in. in length are driven into the ground alongside each plant. As the plant develops the side shoots which form in the axils of the leaves are removed and the growth limited to single or double stems, which are tied to the stake at intervals.

This will encourage the production of early flower culture, at regular intervals along the main stems. When the plant has reached the required height or when sufficient flower clusters are formed, the leaders may be "stopped" by pinching off the terminal growth. This will assist the plant toward ripening and forming the fruits, which have set. Staking gives the maximum amount of sunlight and air to the plant and also renders it less liable to disease and the attacks of insects.

Diseases and Pests.

Tomato Moth: The caterpillar of this moth is troublesome in most districts, boring into the fruit and destroying it for marketing purposes. Arsenate of lead applied in the early stages of fruit development will check its depredations. Spraying should not be carried out on ripening fruit.

Cut-worms: A number of species of cut-worms sometimes attack the plants in their younger stages of growth. Treatment consists in the use of baits composed of arsenic, treacle, and large-flaked bran. These are scattered between the young plants. The cut-worms are attracted by the sweet food and are poisoned.

Fungus Diseases: Tomatoes are often attacked during the growing season by a species of Phytopthera (Irish blight) and Septoria (leaf spot). Where these are experienced, regular applications of Bordeaux mixture at a strength of 4-4-40 are necessary throughout the growing season after moist, humid weather, as a disease preventive.

Tomato Wilt: This occurs as a small circular olive-colored spotting of the leaves, generally causing its death. No practical method of curing this disease has yet been evolved. Plants attacked should at once be removed and burnt. Areas of soil upon which infected plants have been grown should not be planted during the succeeding season.

Varieties.

The following varieties are to be recommended as generally suited to Tasmanian conditions: Veale's Leader, Recruit, Earliana, are smooth-skinned red dessert types.

Ponderosa is a fine pink table Tomato.

Probably the best all-round variety for a field crop is the Australian Improved Red. A new variety, Daniels Selected Open Air has attracted attention recently as being one of the best of recent English importations.

HARVEY FRUIT GRADERS

Colour and Count Grading

THE HARVEY IS 100 PER CENT. EFFICIENT FOR GRADING FLAT APPLES. IT STANDS THE FLAT FRUIT ON ITS TRUE GRADING EDGE, AND THE FRUIT IS NOT KNOCKED OFF ITS GRADING EDGE AND ALLOWED TO SLIDE ON ITS FLAT TO THE WRONG SIZED BINS AS IN THE CASE OF THE MECHANICALLY DRIVEN ROLLER.

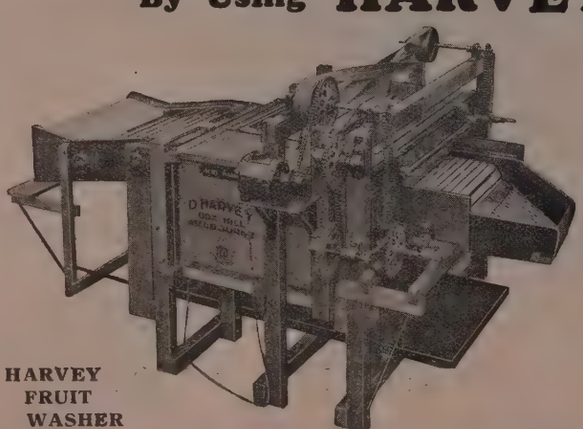
"Harvey" Model 9.C.L.1. Grader with Harvey Roller Sorter Elevator and Automatic Hopper.

START RIGHT—KEEP IN MIND THE FUTURE. The above Grader can be used as the first unit with second and third units added later for color grading as season demands.

PEAR GRADERS—These Machines can be made to any capacity to suit the small grower or the large Packing Shed. Twin Machines to handle two or more qualities simultaneously can be supplied. The pears are carried along stalk downwards and are not rolled. They can be thrown on to the sorting table, which is constructed in a special manner with a canvas belt to ensure no bruising. The sizing device of the "HARVEY" Pear Grader is provided with rubber belts running in the same direction, and arranged to carry along the pears motionless to their respective bins. The grading sections are adjustable to give any grade desired, and are independently operated. The Machine is fitted with spring floor bins, which obviate bruising. Can be operated equally well by hand or power, and is a fast and efficient Machine. Supplied in standard sizes or to any size or specification desired. In the London Market, where consignments have been particularly watched for mechanical grader marks, pears graded by the "HARVEY" Grader have opened up in perfect condition, being beautifully graded, and the pack showed up to the best advantage, and it is said, that no better fruit has been received from any part of the world.

The "HARVEY" GRADER is unequalled for accurate sizing. The patented special new type grading element on the "HARVEY" APPLE GRADER is adjustable to any size desired. Each grade is adjustable without interfering with the grades on either side — no bruising. Multiple speed gear contributes to the efficiency and extends the working range by controlling the speed, as occasion demands. Spring supported packing bins of good depth obviate bruising.

Arsenate of Lead Removed from Pears and Apples
By Using HARVEY Hydrochloric Acid WASHER



HARVEY FRUIT WASHER

The Cheapest and Surest Method of Washing Fruit. Enhances Appearance. NO BURNING—NO BRUISING can take place within the Machine itself, which THOROUGHLY WASHES the Fruit, removing all TRACES OF ARSENATE LEAD POISON and Hydrochloric Acid. As the season is fast approaching, please Order Early to Ensure Delivery.

PACKING HOUSE EQUIPMENT

- Sorting Tables
- Special Pear and Lemon Graders
- Cannery Graders
- Tomato Graders
- Passion Fruit Graders
- Citrus Graders
- Dehydrators
- Citrus Washing and Sterilizing Plants
- Pear & Apple Washing Machines.
- Apple Wiping Machines
- Gravity Conveyers
- Cool Store Trolleys and Trucks
- Lidding Presses

D. HARVEY, ORCHARD IMPLEMENT SPECIALIST **Box Hill, Victoria.**

TASMANIAN REPRESENTATIVES:—MAX GEEVES PTY. LTD., DAVEY STREET, HOBART.

CLEMENTS & MARSHALL PTY. LTD., Launceston. HARRY MURRAY, Devonport. —— AGENTS ALL STATES.

THE MARKET GROWER

OFFICIAL ORGAN OF THE MARKET GARDENERS AND FRUITGROWERS' SOCIETY OF VICTORIA.
President: E. A. Le Page. Vice President: Cr. A. Bunny. Committee: G. Ryan, C. James, C. Baker, L. Lawrence, J. Hawkes, J. Stocks. Arbitration Committee: H. V. Barnett, W. Simmonds, E. A. Le Page, H. Besant, W. D. Barnett.
Secretary: Cr. C. C. A. George, Highett Road, Moorabbin, Vic.
ALSO OFFICIAL ORGAN OF THE KOONDROOK & BARHAM TOMATO GROWERS' ASSOCIATION.

CELERY CULTURE

(Concluded.)

Blanching - Broad Bed Method - Varieties

IN our issues for October and November we printed an article by Mr. T. D. Raphael, of the Tasmanian Department of Agriculture, dealing with planting, transplanting, bedding and other useful points for Celery culture. Now Mr. Raphael concludes his contribution.

:: :: ::

Blanching.

When the plants are about 2 feet high, blanching is commenced by boarding up each side of the double rows with planks of inch wood, 12 feet long by 15 inches wide.

The planks may be supported by soil, wooden pegs, or both. With most varieties about five weeks is required to satisfactorily complete the job.

As with the single row method, under certain conditions the plants may be set at the same distances in a shallow trench, a preliminary moulding being completed by the usual boarding. Complete blanching by moulding is, however, satisfactory in the case of double rows and entails considerably more hand labour.

The double row method

yields nearly twice as many plants per acre as the single row, and is more suitable on shallower and less friable soils, the boards are more easily manipulated, and if properly cared for should last a number of years. The difference in time and labour employed is, however, not as great as it would seem at first glance, and the varieties which can be treated successfully are more limited. As with the single row system, both distances in and between the rows and between the pairs of rows may be altered to suit individual requirements.

(3) Broad Bed Method.

The third and most intensive system of Celery culture is that known as the "broad bed," and is much used in parts of France and generally in areas where the soil is rich, manure plentiful, and the water supply unlimited. Plants are set out in rows 12 inches apart and 6 inches in the row, in beds 6 to 8 feet wide; between each bed an alley 2½ feet wide is left. Celery planted so closely as this is practically self-blanching, and board (of the measurements detailed above) placed along the sides of the bed are sufficient to ensure even, well blanched stalks when certain recognised varieties are grown. The distances mentioned may, of course, be varied, 8 to 9 inches being often deemed sufficient between the rows. Hand hoeing is carried out until the plants cover over and automatically choke any weed growth.

The main danger attached to such close block planting is the development of "heart rot" during unusually dull or wet spells of weather.

An intermediate system of culture suitable for certain varieties is to plant rows 24 inches apart, plants being set in the rows at from 4 to 5 inches apart; boards are, of course, necessary to complete the blanching process. This method has several advantages—a greater yield of plants per acre is obtained than where either the single or double row systems are employed, yet the danger of heart rot which is present in the "broad bed" is considerably reduced by the wider spacing. Horse cultivations would be facilitated by increasing the distances between the rows by from 4 to 6 inches.

Blanching — Other Methods.

UP TO THE PRESENT two main methods of blanching celery have been described—earthing up and boarding. Additional methods are as follows: (1) by means of pipes placed around the stems from 4 to 6 weeks before required for market. Suitably sized tins may also be used in cooler climates with success. (2) By wrapping the stems in paper or other material. (3) By covering plants with matting where grown on the "broad bed" system. (4) By lifting the roots and packing fairly closely in boxes 1 foot wide, 2 feet deep and 5 feet long. About 3 inches of moist sand or earth is first placed on the bottom of these boxes, which are stored in reasonably well aerated cellars or pits, the blanched stalks being taken out as required.

Diseases.

There are a great many fungi which may attack Celery plants at one stage or another of their growth, but if due care and attention is given to the initial seed bed treatments, these need not cause the grower much anxiety. "Rust" (Puccinia bullata) and "leaf spot" (Septoria petroselini) are probably the most serious, and will frequently ruin whole crops if Bordeaux treatment is not given at regular intervals.

Manuring.

For Celery culture well rotted stable manure or mixed farmyard manure, at the rate of 25 tons per acre, is unsurpassed. Artificial fertilisers, however, are often used, a mixture of superphosphate and sulphate of potash in equal quantities applied at the rate of 6 cwt. per acre being beneficial. Spring dressings of about 2 cwt. nitrate of soda are also recommended.

Varieties.

The selection of suitable varieties is undoubtedly of primary importance; but, whilst most large Celery producing localities have a few particular favorites, it will generally be found that these are selections rather than distinct varieties, and that there is a considerable amount of synonymous nomenclature throughout. It has already been mentioned that certain groups of varieties lend themselves to particular methods of culture, and a few representative types will be mentioned below.

For cultivation in peaty soils the English varieties White Gem (dwarf early), Bibby's Defiance (dwarf), Sandringham and Solid White can be recommended; the last-mentioned is an old but excellent variety, which is not given to suckering. Giant Pascal, as grown in America, is also a fine green-stemmed type. Of the pink-stemmed varieties, Clayworth Pink excels, and has the advantage of resistance to frost injury. The so-called "self-blanching" types, which are much cultivated in America and have come into favor in Australia, are White Plume and Golden Self-Blanching. Paris Golden, a white-stemmed French variety, is suitable, in common with the previous two varieties, for growing under the "broad bed" and "double row" systems.—Tas. Journal of Agriculture.

"Plane" Brand Dusts

"Beauty" (Knapsack) Dusters
"Superior" (Rotary) Dusters

ARE MANUFACTURED BY

N. N. McLEAN Pty. Ltd.
395 Queen Street
MELBOURNE

Brown Vegetable Weevil

Protection of Potato and Tomato Crops

BROWN VEGETABLE WEEVILS cause damage to Potato and Tomato crops from October to December. These beetles emerge from the soil in the spring of each year, and feed voraciously for two to three months until the hot summer weather arrives, states the N.S.W. Department of Agriculture. They then become inactive until the advent of cooler weather in the autumn, when they commence to lay their eggs in the soil amongst weeds and vegetable crops. Egg laying continues throughout the winter months, and the grubs which hatch from the eggs feed upon weeds and winter vegetables. In the spring the grubs pupate in the soil, and about two weeks later the beetles emerge.

The brown vegetable weevil has the head extended into a snout or trunk, at the end of which is the mouth. The beetle feeds at night on the leaves and stems of plants, and during the day hides in the soil. The foliage of an infested plant has a ragged appearance, and an examination of the oil at the base of the plant will reveal the greyish brown beetle about one-third of an inch in length.

Where Tomatoes or Potatoes have been planted in areas which were over run with weeds during the winter, infestation by the brown vegetable weevil may be expected. It should also be remembered that weed growth adjacent to the crop may prove a source of infestation. **Growers therefore should always endeavour to prevent weed growth in areas adjacent to, or where Tomatoes or Potatoes are intended to be planted in the spring.**

Infestations on Tomatoes and Potatoes may readily be controlled by dusting with one part of lead arsenate or calcium arsenate mixed with four parts of hydrated lime or kaolin.

Spraying with lead arsenate mixed at the rate of 1 lb. of lead arsenate powder to 30 gallons of water will also give effective control.

Glovel, A New Tomato

Early, Resists Wilt

A new Tomato variety is announced from America. It is wilt and rust resisting and free from growth marks, and resembles the Marglobe in firmness of fruit. It is an outcome of breeding and selection undertaken by the U.S. Department of Agriculture in conjunction with the Experimental Station at Florida.

Named the Glovel, it has a colorless, transluscent skin, ripening to scarlet-red, a color in great demand in the American markets. During the past four years in which it has been tested it has outyielded the Globe and Marglobe varieties, and has maintained its size in successive pickings.

Seeds of the new variety have been distributed to growers in several States for general testing, and to enable supplies to be obtained in commercial quantities for further testing and development. The vine growth is vigorous and open.

DEAD PESTS EAT NO SHRUBS ———
SPOIL NO FRUIT NOR VEGETABLES

Fischer's Manurial Insecticide

(From the Original German Formulae)

LEAVES THEM DEAD — NOT STUPEFIED
AND STERILISES THE SOIL

May be used as **DUST, SPRAY** *or* **MANURE**

Write at once for Free Literature.

KILL-A-MITE COMPANY Henty House, 499 Lit. Collins St. MELBOURNE, C.1.

Telephone: F 6017.

C. V. NUTT, President
Melbourne and Metropolitan Retail Fruiterers' Association.

The Melbourne and Metropolitan Retail Fruiterers' Association

President, Mr. C. V. Nutt; Vice-President, Mr. H. Kruse; Committee, Messrs. Lewin, Brown, Child, Chetkett, Graydon, Delaney, Marsden, Canestra, Avitabile, Aston, Wilkinson, Norris, Holloway, Newman, Cooper; Secretary, Mr. E. W. Thompson; Asst. Secretary, Mr. Wm. Trivett; Treasurer, Mr. Chas. Mawdsley.

Delegates to Vic. United Retailers' Council, Messrs. Thompson and Mawdsley.

E. W. THOMPSON, Secretary
Melbourne and Metropolitan Retail Fruiterers' Association.

Comments and Good Wishes from Mr. C. V. Nutt, President Retailers' Association

ALTHOUGH the expiring year, 1935, cannot be classed as the worst on record for the trade, it cannot be said to have been much better, and although we have had a bounteous year of all produce, the sale of it has been very limited throughout.

The cause is attributed by many to the prevailing financial stringency, but the fact cannot be overlooked that the weather conditions during the year has been the dominating power. Weekend after weekend has been disappointing, and shopkeepers have been just as consistently disappointed in their sales which have been just as disappointing to the growers, but with the approach of the New Year let us all forget the past one and look forward to a brighter and more prosperous one than the last.

From present appearances I should say we are going to be blessed with good harvests of everything grown; we have not heard or seen so much of the thrips, black spot, brown rot or other pests as usual, so let us all forget the past and look forward to the future with confidence and cooperate together to lift the whole of the fruit industry up on to that pedestal it should undoubtedly occupy.

With these few remarks I wish all in the trade a bright and happy time during the coming festival season to be followed by a better and more prosperous year than the last—C. V. Nutt, President, Melbourne and Metropolitan Retail Fruiterers' Association.

Melbourne and Metropolitan Retail Fruiterers' Association

MONTHLY MEETING.

THE monthly meeting of the executive was held in the Temperance Hall, Russell-street, on November 7.

Amongst the correspondence was a suggestion from the Market Gardeners' Association that a conference be held of representatives of the Florists', Fruitgrowers', Market Gardeners' and Retailers' associations, to consider various proposals to improve the parking facilities for retailers' vehicles at the market, and as the position is getting more acute daily now, and will be much worse during the next few months whilst the soft fruits are being marketed, it was decided to arrange for a conference to be held on Tuesday, December 3, to consider the matter. Mr. Minns, Superintendent of the Market, has accepted an invitation to attend, together with representatives of the associations concerned.

Reports were also given of the recent deputation to the Government asking that the sale of fruit and vegetables be prohibited on Sundays. It was pointed out to the Minister that such trading was unnecessary as most fruit shops were open until 11 or 12 p.m. on Saturday nights, and housekeepers had ample time to secure their requirements before that hour.

The Minister's reply was sympathetic, and he stated that although no action was possible, this session, he would place the whole facts of the position before Cabinet, together with the petition presented containing nearly 850 names, during the coming recess.

An invitation was also received from the National Safety Council to affiliate with that body, and in appreciation of the valuable services they are rendering the community the invitation was accepted.

The Secretary reported that Mr. T. Walsh, one of our members, had died rather suddenly since our last meeting, and that he had forwarded on behalf of the Association a letter of sympathy to the relatives.

Some discussion took place in reference to the great number of old dilapidated cases in use for the marketing of fruit. This refers to the old upright and also some of the flat cases in which Cherries are brought in, and it was decided that in order to improve the position and not to inconvenience growers either, that on and after January 1, 1935, all retailers be asked to return good dump cases to growers when purchasing fruit in upright cases, and also to request the growers to pack their Peaches and similar fruit in half dump Tomato cases in future. A great many growers are already utilising the latter for Cherries with satisfactory results, and an extension to Peaches, etc., may be equally satisfactory, besides being far more easy to handle than the flat case at present in use.

A circular is being issued to all members on the subject, and also to inform them that regulations have been gazetted making it compulsory for all cases of Apples, Pears and Quinces to have the number of fruit contained marked legibly thereon. This latter regulation is very desirable and will enable retailers to sell the fruit by number instead of by weight, and thus fall in line with the other States, Railway Department, and almost all cities throughout the world.

Mr. Mawdsley gave a short address on his recent visit to Sydney, principally comparing the marketing conditions of Sydney and Melbourne, which was much appreciated by those present.

Fruit Marketing in Sydney

Victorian Retailer's Impressions

CONGESTION IN SYDNEY MARKETS :: RETURNABLE CASE PROBLEM :: SELLING FRUIT BY NUMBER INSTEAD OF WEIGHT APPRECIATED.

Views of Mr. Chas. Mawdsley.

The Editor, "Fruit World and Market Grower."

Sir,—Having just returned from a visit to Sydney, I feel more than ever convinced that the members of the retail fruit trade in Melbourne have a lot to thank the Melbourne and Metropolitan Retail Fruiterers' Association for. The many reforms that have been brought about in Victoria, in the retailing and marketing of fruit and vegetables have only been accomplished, through the untiring efforts of the executive of our organisation, and when one sees the apparent chaos which prevails in the marketing and distribution of fruit and vegetables in other States, it makes one feel rather proud to belong to an association such as we have in Melbourne.

All these privileges which our members enjoy have not been brought about in a day. The Association's activities have been spread over a number of years, and although much remains to be accomplished, the executive can certainly look back with a certain amount of satisfaction upon what has already been done.

Our Association has been in correspondence with a section of the trade in Sydney, whom we were led to believe were forming an association on somewhat similar lines to ours, and it was the writer's intention to address a mass meeting of retailers during his stay in Sydney, upon the working and benefits of a retailers' association, but I found upon arrival there that practically no association existed. After conferring with one or two prominent people interested, I reported the results of my interviews with these gentlemen on my return at our monthly meeting, when it was unanimously decided that any assistance that our Association could render would be gladly given to help the Sydney retailers in forming an association similar to our own.

There are some very fine fruit shops in Sydney and suburbs, and nearly all of them sell milk, sweets, ice blocks and generally conduct a mixed business.

There is no restriction on trading hours, and the majority seem to open Sundays as well. There is a daily market in Sydney, but after conducting one's business in the Victoria Markets, things

seem badly congested

in the Sydney market, mainly owing to the situation of the market and the narrow approaches to same.

One custom they still have in Sydney which must be very irritating to both buyer and agents alike, is that when a buyer purchases a case of fruit from an agent, he must return the empty case, which is the square type of bushel case, with the lid attached with leather hinges. Upon its return the buyer receives a shilling, which he has previously paid as deposit. The grower's name and the agent's name are usually pasted on the ends of the cases, and during wet weather the label more often than not washes off.

Then no agents want the empties without their names on, and the shopkeeper has to hawk his empties about until he finds an agent who will take his returns. This is just an illustration where an organised effort on the part of the retailers would have this obsolete custom done away with, thus benefiting both agent and retailer.

Selling fruit by number is universally adopted in Sydney, and our Association sincerely hopes this practice will be adopted in Victoria before long. Judging by the qualities of the fruit and vegetable displays in Sydney, the Melbourne public is well catered for, this is particularly noticeable in the vegetable section.

Yours, etc.,
CHARLES MAWDSLEY.
Malvern, Vic.

PATRONISE AN AUSTRALIAN INSTITUTION
The . . .
UNITED Insurance Co. Ltd.
(Incorporated in New South Wales in 1862)
All Classes Fire, Marine & Accident Risks
Including:—
HOUSEHOLDERS' COMPREHENSIVE INSURANCE
PASSENGERS' BAGGAGE, ALL RISKS — PERSONAL ACCIDENT — MOTOR CAR and PLUVIUS (RAIN)
:: INSURANCES AT LOWEST CURRENT RATES ::
VICTORIAN BRANCH 52 QUEEN ST., MELB.
Telephone: Cent. 1668-9-70. A. L. BOSTON, Manager.

Export & Commercial News

PEAR EXPORT

Auction Sales v. Private Treaty

(By Chas. J. Parnham, Melbourne.)

FOR MANY YEARS and for some unaccountable reason, growers have held to their opinion that the one and only place in London to market Pears successfully is Covent Garden, their supporting reason being that as Pears are a "class" trade they should be sold by private treaty.

Such a contention might have been justified twenty-five years ago, when shipments of Pears were very small, but with the substantial increase in Pear exports, not only from Australia (the Empire's share of the total imports in 1934 amounted to 39 per cent.) but from Canada, Belgium, United States and Italy, it is becoming more and more apparent to shippers that the market in which to obtain the best results for Pear shipments is not Covent Garden, but at the great Spitalfields Markets, where the concentrated buying power is very strong, and where the auctioneers display the greatest enthusiasm in competing against their fellow auctioneers in securing highest prices. In fact, every auctioneer employed regards his particular sale as a definite measure of his strength and capabilities and is jealous of his position.

As a definite instance of the swing over to Spitalfields auction market, one very large Tasmanian shipper has published a report that the sale of Pears by public auction at Spitalfields was "most gratifying and encouraging, and all concerned were well satisfied." The report further states that "selling this large quantity of Pears at magnificent prices at Spitalfields brought about a much healthier condition at Covent Garden than would otherwise have existed—of that one can be quite sure."

It was noticeable that after the excellent sales by auction at Spitalfields, Covent Garden prices rose immediately. Why? Was it because the auctions had forced considerable quantities of fresh Pears into immediate consumption and consequently Covent Garden salesmen could command a higher price for their holdings, or rather was it because the excellent prices obtained at auction necessitated the Covent Garden merchants forcing their prices up or losing whatever prestige they held as Pear salesmen? Whichever the case the fact definitely remains that Pear buyers are largely supporting the public auctions, where, although the competition is tremendously keen, they can obtain delivery of Pears fresh from the discharging steamer rather than bargaining with private treaty salesmen for lines of fruit, some of which has been a considerable time in the warehouse, and (as growers know too well), not improving in condition by being kept.

Furthermore, printed catalogues of all fruit sold by public auction are issued and growers have the opportunity of comparing their account sales with the prices in the printed catalogue.

I know that one of the largest fruit brokers in the United Kingdom, Messrs. White & Son Ltd., have for years been endeavoring to impress on growers and shippers the high importance of Spitalfields as a Pear market, and it must be intensely gratifying to them now to observe that the Australian shipper is at last recognising that public auction is superseding private treaty for the sale of Pears. Any grower who desires to check his account sales for Pears sold by private treaty as against auction should communicate with Parnham Pty. Ltd., 31 Queen-street, Melbourne, who have complete records of all Pears sold by White & Son.

The following gross averages throughout the season make interesting reading:—

Bushel Boxes.

	English Currency.
Winter Cole	12/3
Beurre Bosc	11/6
Keiffers	9/9
Comice	17/3
Packhams	13/6
Josephine	15/3
W. Nelis	16/10

Standard Boxes.

Winter Cole	10/5
Bosc	8/9
Vicars	10/–
Comice	15/–
B. Morceau	12/1
Packham	11/1
Josephine	14/8
W. Nelis	14/9

Trays.

Comice, per tray	10/6
B. Bosc, per tray	4/10
Josephine, per tray	6/1

I would be glad to furnish any additional information to Pear growers in this connection.

TRADE WITH GERMANY.

Bartering Apples for Machinery.

In order to effect the sale of 50,000 cases of Apples to Germany, Mr. W. Pitts (Pitts and Lehman Ltd., Sydney), who has just returned from abroad, stated that the sale had been effected on the barter system, Germany to supply spraying materials, agricultural and orchard implements.

Extending Apple Growing in England

Review of a Big Scheme.

WHAT is claimed by the promotors to be an organisation of great importance, and one which is sponsored by a committee of well-known English public-spirited men and women, is a movement described in a brochure forwarded recently to our office.

Its basic objectives seem to be to encourage the growing of Cox's Orange Pippin Apples in England, and to give employment to large numbers of ex-service men and others in Bedfordshire. The scheme was launched some years ago by Cox's Orange Pippin orchards, and the organisation became known as COPO Ltd. It is a public company and returns dividends to shareholders.

In brief, the scheme reads like a co-operative Apple growing industry. The company owns some thousands of acres of land, said to be suitable for growing Apples. They sell to purchasers any number of trees on the estate, at the rate of £30 per 100 trees. These they propagate, manage, harvest the fruit and sell it on behalf of its owners, providing the requisite machinery and attention. They charge a fee of 10 per cent. of the annual net profits derived from the trees concerned, and claim that the immense number of such trees purchased allows them to give economical growing and selling costs to the owners, and an increasing dividend over 5 per cent. to shareholders.

Theoretically, they claim that the purchase of 200 trees for £60 will return to the owner £146 in ten years' operations.

In addition to the investment of capital by shareholders, employment on the huge farm of the company is said to be of benefit to numbers of men and women whose services would not be otherwise utilised, and, as the scheme develops, more and more labor will be needed, and financial assistance from public funds thereby decreased. The company has its own extensive nursery, in which 300,000 trees are being prepared for 1936 planting, and even more are expected to be required for 1937.

Behind the scheme, which is an admirable one from the English point of view, and supplements many other plans for increasing employment in the agricultural development which is being fostered in Great Britain, is the avowed purpose of attempting to produce more, and therefore import less, goods from other countries.

Ordinarily, such a scheme would not be popular with Australian fruit growers, but the fact that the growing of Orange Pippins in England will scarcely affect the varieties at present being shipped from Australia, is a fortunate condition, and the almost inexhaustible fruit appetite of the London market will not be greatly influenced by the apparently growing co-operative movement.

Tasmanian Apples for Sweden

Mr. Nettlefold's Advice.

Following investigations personally conducted in England and on the Continent of Europe by Mr. Robert Nettlefold, of Hobart, he advises that Sweden imports some 400,000 cases of Apples annually. Most of this volume comes from Western Australia, North America and South Africa, although Tasmania has recently supplied small quantities.

One difficulty at present is transshipment, only one boat went direct to Stockholm this past season, but next year at least two are expected. He urges Tasmanian growers to attempt to get those boats to load in Hobart and explains that only the best export quality of Apples must be sent. As the duty on Apples into Sweden is 2/3 per case up to July 1, and 4/6 after that date, it is essential, to compete with other countries, that Australian Apples should arrive before July 1.

PORT of LONDON

The World's Best Fruit Market

Sales can always be depended on for best quality fruit at highest prices.

Besides its own vast population, LONDON supplies the seaside resorts. Tourists make their headquarters in LONDON and want the best fruit.

LONDON has always been the centre of the Australian and New Zealand fruit trade, and although many efforts have been made to divert it to other ports, the presence of its huge local market with expert distribution agencies will ensure it remaining so.

LONDON is an **INTERNATIONAL** MARKET where the WORLD'S BUYERS congregate, and where the highest prices for best produce are always obtained.

All particulars as regards charges, etc., can be obtained from:

Capt. A. W. Pearse, Port of London Authority, 22 Loftus St., Sydney

Organising the Fruit Industry

N.S.W. CHAMBER OF FRUIT AND VEGETABLE INDUSTRIES APPRECIATES APPLE AND PEAR COUNCIL AND "THE FRUIT WORLD."

EFFORT TO CREATE AUSTRALIAN ORGANISATION FOR LOCAL MARKETING HEARTILY SUPPORTED.

APPRECIATION of the good work of the Apple and Pear Export Council and the "Fruit World" on behalf of the industry was expressed by members of the Chamber of Fruit and Vegetable Industries on November 29. The President (Mr. L. J. Jenkins) in welcoming Mr. R. E. Boardman to the new offices of the Chamber in Thomas-street, Sydney, thanked him for the services he had rendered to the industry. The Chamber was pleased to associate itself with the work that was being done on behalf of the industry. "Service with integrity" would be the watchword of the Chamber of Fruit and Vegetable Industries, which was composed of men who had the interests of the trade at heart, men who would be stable and give everything in their power to further the interests of the industry, not only of their section of it, but the whole of the fruit industry in general.

Mr. Walter Musgrove (Senior Vice-President), supported the President's remarks, and expressed the opinion that the views of the Apple and Pear Export Council were identical with those of the Chamber. He hoped that those interested in the trade in other States would link up with the Chamber of Fruit and Vegetable Industries and thus broaden the scope of those whose chief interest was the advancement of the industry. He would like to see an organisation functioning on an all-Australian basis for dealing with local marketing, just as the Apple and Pear Council was operating with regard to export.

Mr. P. S. Macdermott, in supporting the views of the previous speakers, said there must be the closest co-operation in the trade with the Apple and Pear Export Council and the organisation that was being created to develop the Australian markets. Great work was being done that would have a lasting beneficial effect on the industry. He had interested himself in the endeavors that had been made to lift the N.Z. embargo and he could tell those present that the prospect of the embargo being lifted was brighter to-day than it had ever been before. He understood that New Zealand would be prepared to shortly lift the embargo, seeing that the United States would not in future consider the importation into N.Z. of Oranges from N.S.W. and Victoria, a bar to the sending of Apples and Pears from N.Z. to U.S.A.

Mr. H. Woodward said he admired the manner in which the "Fruit World" placed the views of the whole industry before its readers. The Chamber of Fruit and Vegetable Industries was also doing a service to the industry, and the manner in which it had functioned so far, gave promise of excellent future results.

Mr. Boardman, in reply, reminded those present that they were making history: building on a sure foundation would bring a sure reward. The Apple and Pear Council and its affiliated State organisations had attracted men of the highest calibre among growers and shippers. Australia was giving a constructive lead to Empire policy. The N.S.W. Chamber of Fruit and Vegetable Industries had commenced on sound lines, and he was glad to note their co-operation with established growers' associations. Round table conferences by the Chamber with the growers would result in substantial benefit to the industry. Every section working in harmony would lead to the ultimate objective — profitable marketing of more and better fruit.

Chamber of Fruit and Vegetable Industries

THE N.S.W. Chamber of Fruit and Vegetable Industries is developing its policy of co-operation with, and of assistance and fullest service to, growers.

A number of conferences have been held with representative growers' organisations, resulting in a completer understanding and a common design in many matters.

Railways, after being approached, have adjusted time tables, permitting of earlier arrival of trains and of the fruit in the market, thus affording greater facilities to the agents, allowing them to have their fruit sorted and stacked prior to the rush of early buyers, thus creating greater efficiency in sales service. This applied mainly to Cherries, Peaches, Apricots and Plums.

Particular attention has been paid also to arrivals ex shipments from Tasmania and Victoria, resulting in much better handling where previously damage was occasioned.

Recently at Gosford, the president, accompanied by the general secretary, attended a conference, when a comprehensive review was made of matters affecting the industry, goodwill permeating the whole discussion.

The bulk loading service has been established, with the help of fruitgrowers' organisations, and is now available for growers in all States. This service is operated through a trading company known as "Fruit and Vegetable Traders Ltd." Growers who have not their growers' organisations to serve them, may use the trading company. Bulk delivery has not been accepted, individual agents, carriers and contractors acting for their respective principals.

Recently, delegates attended upon the Tasmanian State Fruit Board in Hobart, and were also in attendance at the Apple and Pear Conference, their services being availed of in respect to matters affecting interstate trade.

The chamber is now housed in its own premises at 215a Thomas-street, where attractive and suitable offices have been built.

A feature that council desires to stress is, that the chamber is not actually a new body, but one evolving out of the erstwhile N.S.W. Fruit and Vegetable Agents' and Merchants' Association, the one terminating as the other began.

The bulk of the same persons and firms comprised the personnel, bringing with them their wealth of experience, but the chamber is new in its greater demands upon members, generally affecting the conduct of their businesses, in its disciplinary measures, and in its determination that its members will consistently trade with their grower-clients in an ethical and honorable manner.

The chamber is further designed to ensure that every grower will be paid in full for each and every consignment, and to ensure that every penny that is rightly his will reach the grower's hands.

F. Chilton, Established 1894.
Fruit Commission Agent,
Licensed Under Farm Produce Agents' Act.
Highest Market Prices, Prompt Returns, Reliable Advice.
Registered Address for Telegrams and Cables—
"Chiltons."
City Fruit Markets, Sydney.

FRUITGROWERS!
For Satisfactory Results, Send Your Fruit to
F. H. G. Rogers
Fruit Selling Expert.
Municipal Markets, Sydney.
Shipping No. 83. **Established 1900.**

Telephone MA 3846. **Established 1900.**
W. MUSGROVE & SON
Licensed Farm Produce Agents.
8 City Fruit Markets, Sydney.
Our Motto—Quick Sales and Prompt Settlements.
Forwarding Numbers:
Tasmania, Victoria, S. Australia, **No. 53.**
Queensland, Northern Rivers, **No. 18.**

Growers Obtain Top Prices by Consigning to:—
H. J. GREENTREE
(Est. 1920)
MUNICIPAL MARKETS, SYDNEY.
Shipping Nos.—Tasmania 228, Q'land & Victoria 40.
Phone: MA 1769.

H. P. WOODWARD
Licensed Farm and Produce Agent,
City Fruit Markets, Sydney.
£1,000 Fidelity Bond. References, Bank of N.S.W.
Telegraphic Address, "Woodward." Code, Bentley's.
SHIPPING NO. 281.
Phones: MA 2612 and X2317.

Telephones: MA 4432, Epping 840. Est. 1896.
Bankers: Bank of N.S.W., Haymarket.
H. BLACK & SON,
Licensed Farm Produce Agents,
17 City Markets, Sydney.
Consignments of Fruit, Tomatoes, and Other Produce Received for Sale.
Cases Sent on Application.
Cash and Account Sales Rendered Weekly.

GROWERS!—Consign your Fruit to—
JAMES SLATER
21 CITY MARKETS, SYDNEY.
Postal Address: Box 36, Haymarket P.O., Sydney.
Established 1882.
SHIPPING NO. 19. 88 VIC. & TAS.
Stencils, Advice Notes, etc., on Application.

Associated Growers' Selling Agency
Licensed Farm Produce Agents.
CITY MUNICIPAL MARKETS.
BRUCE R. SMITH, Proprietor.
Reliable Service, Prompt Advice and Returns.
Highest Ruling Rates.
Phone: MA 1828.

CONSIGN YOUR FRUIT TO
HOPKINS & LIPSCOMBE
Proprietor: STANLEY H. POGSON.
LICENSED FARM PRODUCE AGENT.
MUNICIPAL MARKETS, SYDNEY.
PROMPT RETURNS. SHIPPING NOS.—
58 Vic. and Tas., 68 Q'land.
Bankers: Bank of N.S.W., Haymarket, SYDNEY.

FOR SERVICE AND SATISFACTION
Consign To
J. J. MASON,
City Markets, Sydney, N.S.W.
Fruit Agent, Licensed Under Farm Produce Agents' Act, 1926. Bankers: Bank of N.S.W., Haymarket.
Shipping Nos.—Vic., N.S.W., Queensland, 133; Tasmania, 185.
Phone: MA2605.

PATENTS
GEORGE A. U'REN
PATENT ATTORNEY
"HEATY HOUSE." 499 LITTLE COLLINS ST. MELBOURNE.

Our London Letter

New Dessert Apple—Decrease in English Crops.

(By L. Bruce Purton, Representative in London of the "Fruit World and Market Grower.")

Imperial Fruit Show.

THE Imperial Fruit Show has just been held at Cardiff, Wales. It was the fifteenth yearly exhibition of Empire-grown fruit, and there were 2,000 exhibits entered in the 122 classes provided. Australia was well represented with an exhibit prepared under the supervision of Mr. A. E. Hyland, Director of Australian Trade Publicity. The stand was very attractively displayed and included fresh fruit in Apples and Oranges, dried fruits in Sultanas, Currants, Raisins, Pears, Prunes and Muscatels, and canned fruits in Peaches, Pears, Apricots, Pineapples, Raspberries, Loganberries, Gooseberries, Greengages, etc. There was also an attractive display of jams and preserves.

This annual show was inaugurated by the London "Daily Mail" fifteen years ago, and its importance has grown with each successive year. There is no doubt that it has been a large contributory factor in making the people of Britain more fruit-minded—which is all to the good of Australia, whose growers are steadily busting foreign competition from this market.

New Dessert Apple.

There were many special features about the show. Among these was a new early English dessert Apple, which is now on the market under the name of Laxton's Fortune. It is ready for consumption before the Worcester Pearmain, the experts say that its advent will check the tendency to market Worcesters before they are quite ripe.

A good deal of interest was taken in a large display of South African Lemons. This was chiefly because there has been a tremendous shortage of Italian Lemons. South Africa has stepped into the breach to some purpose. I understand that until this year lemon-growing on a large scale was only in the experimental stage in South Africa. Export is now possible, however, and already 30,000 cases have reached British ports this year from our sister Dominion.

Decrease in English Crops.

Owing to frosts and gales, English fruitgrowers had a greatly decreased apple crop this year, but the English apples on view at the show were wonderful in view of these handicaps. The shortage has naturally helped Australian exporters, but British canners say they have been very hard-hit. In fact, some of them have been unable to open their canneries.

The old saying "an Apple a day keeps the doctor away" will have to be revised. The publicity director at the show said that more than 3,000 doctors had accepted invitations to be present. I had the pleasure of meeting one of them. He was Dr. T. Wallace, of the Long Ashton Fruit Research Station, near Bristol. He was one of the judges of the 500,000 apples displayed at the show. He owned to having sampled more than 100 Apples in one day. His method was to peel them thinly to get the full benefit of the Vitamin C, just under the skin, and to keep his palate fresh would periodically nibble cheese.

He said that a good Apple should have a nice blend of acid and sugar. While people preferred a crisp Apple, he felt in his view the modern tendency was to aim at producing an Apple which melted in the mouth.

London Our Best Market

But Fruit Must be the Best.

It has been abundantly proved, season after season, that the capacity of London for fruit is of immense value to Empire producers.

The last two seasons have produced an enormous supply of fruit from Australia, a quantity of it consisting of qualities not wanted by anybody. Great Britain requires fruit of the highest quality, but Australian shipments are not restricted to fruit of highest quality, and the best test of a market is its ability to dispose of all grades of goods.

It is possible to glut any market, and it is well known that the markets, not only of London but of all ports of the United Kingdom, have been glutted during recent years. It must be remembered that the whole of the Australian crop is shipped within a comparatively short period, and a large proportion arrives in England at a time when home grown soft fruits make their welcome appearance.

However, more can be done in Australia than in the United Kingdom ports to enable fair prices to be realised. The fruit must be right in quality and variety and arrangements should be made to ensure that enormous quantities are not thrown on the markets at one time.

Meanwhile, no other port can offer facilities comparable with those of London for dealing with all classes and huge quantities of goods to the utmost advantage.

The Irishman was relating his adventures in the jungle.

"Ammunition, food, and whisky had run out," he said, "and we were parched with thirst."

"But wasn't there any water?"

"Sure, but it was no time to be thinking of cleanliness."

Firms in the Fruit Trade

T. STOTT & SONS

(No. 4 of Series.)

AWAY back in 1882 the late Mr. Thomas Stott established this well-known business and became one of the best-known and most respected members of the Melbourne wholesale fruit trade.

Upon his death in 1925, his three sons carried on the business which has increased in popularity with both growers and buyers alike. Now a third generation has appeared in the persons of sons of Mr. H. T. Stott and Mr. H. A. Stott, and the family tradition for studied service to their clients is being worthily maintained.

Continual personal management of the business and careful attention to client's requirements has made the company noted for fair dealing at all times, a character to which all who do business with the company have been pleased to testify.

In an interview, Mr. H. T. Stott stated that the company is not unduly concerned about the scares which some people enjoy attempting regarding the future of the fruit industry. He believes that just so long as growers produce and merchants distribute a high quality of fruit at reasonable prices, so long will the public continue to want it. Fruit consumption is greater than it has ever been, and with modern methods of improved production and distribution there is no need to anticipate any imminent decrease in the public appetite for fruit.

But true as this may be, he believes that an even greater consumption of fruit in Australia may be reasonably expected if properly organised and regular campaigns were undertaken to keep fruit before the public. The consumption could easily be doubled by judicious education of the nutritive value and palatability of fruit, its ease of preparation, its adaptability for all occasions and its accessability at all seasons.

Campaigns of this sort should be seasonal and persistent, the responsibility for them rests upon all factions of the industry, and all should bear their respective proportions of the cost of such. His company would strongly support such a means of increasing local consumption.

Back of an advertising and educational programme, obviously, is the necessity for ensuring that only good quality fruit is distributed, evenly graded and packed. This affects growers, merchants and retailers in equal proportions, and so long as the public can get good fruit at reasonable prices, so long will they maintain or increase its consumption.

In the past few years, although some new varieties have increased in popularity, in the main there has been no marked change in fruit submitted at the wholesale markets, nor has the method of distribution been materially altered. Except under exceptional circumstances, good fruit is generally available and retailers' interests are protected by those firms with whom they have long done business.

Stotts are amongst the few wholesale merchants who have developed the trade with winter Beans from Queensland and Tweed River Districts in N.S.W. in recent years, and they handle a good proportion of these shipments that come south.

Do not run any Financial Risk with your Fruit but Consign it to

HEDLEY GEEVES PTY. LIMITED

Telegraphic Address: "Apples, Brisbane." (Hedley Geeves, Managing Director) Registered Shipping No. 6.

FRUIT EXCHANGE—BRISBANE

SELECTED AGENTS FOR:

Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd.
Harcourt Fruit Supply Co. Ltd.
Victorian Central Citrus Assn. Ltd.
Tasmania: State Fruit Advisory Board.
New South Wales: Griffith Producers' Co-op. Co. Ltd.
Batlow Packing House Co-op. Soc. Ltd.

SPECIAL NOTICE TO FRUITGROWERS

All Members under Fidelity Bond

In response to numerous requests from growers for information as to who are members of the

Wholesale Fruit Merchants' Association of Victoria

the following list is given. All are members of the above Association, and are registered firms carrying on business in the

WHOLESALE FRUIT MARKET, MELBOURNE.

STAND NUMBERS ARE AS INDICATED IN PARENTHESES.

T. STOTT & SONS (26).
H. L. E. LOVETT & CO. (23).
A. E. PITT (14).
J. DAVIS PTY. LTD. (8).
W. S. TONG (31).
SILK BROS. PTY. LTD. (24-25).
J. G. MUMFORD (35).
GOLDEN VALLEY FRUIT CO. PTY. LTD. (15).
J. W. ROSS (13).
H. M. WADE & CO. (21).
DAVID SMITH PTY. LTD. (3).
SILBERT, SHARP & DAVIES PTY. LTD. (17)
W. A. WATKINS (5).
P. A. PATRIKEOS (36).
G. WOOLF & SONS (29-30).
F. CAVE & CO. PTY. LTD. (9).
R. CORNISH & SONS (5).
J. HYMAN & SON (51).
HERBERT WILSON PTY. LTD. (10).
FRANK BOOTH & SONS PTY. LTD. (16).
GEO. LISTER PTY. LTD. (12).
TIM YOUNG & CO. PTY. LTD. (18).
F. W. VEAR PTY. LTD. (28).
YEE HOP LOONG & CO. (32).

Correspondence is invited by the Association.

Office : 21 Wholesale Fruit Market, Queen Street, Melbourne. Phone F 4866.

PERFECT PACKING ESSENTIAL SAYS MR. E. JOHNS.

Mr. E. Johns, managing director of Australian Fruit and Produce Co., has returned after a visit to England. Mr. Johns left last June on a business trip, which took him to London, Hull, Liverpool, Edinburgh and Glasgow. In all these centres he made business connections with regard to the sales of Australian fruit. In London he linked up with M. and W. Mack, of Covent Garden, a firm dealing in a very large way with fruits from various parts of the world. This firm, which handles 300,000 cases of Apples in one season, has its own cool stores in their warehouse at Covent Garden, which helps materially in the handling of Australian fruits, especially Pears.

While in London, Mr. Johns attended several auction sales, and, after having witnessed these sales, he formed the opinion that private treaty is the better method of disposing of fruit. He fully agreed that the advertising of Empire goods in England had a good effect on sales.

The high prices obtained for Australian fruit in England last season, however, must not be taken as a criterion of what may be received in future. The frosts experienced in England this year considerably curtailed the output of summer fruits, and that was one of the main factors for the good prices received for Australian Apples. It was very necessary that growers in Australia pay strict attention to their export pack. Competition from other centres was so keen in this regard that perfect packing was absolutely essential. With regard to the cases used, Mr. Johns was of the opinion that the Canadian shaped case certainly had a big advantage on the dump case, especially in regard to the bulge. The bulge allowed for shrinkage, which gave the case, on arrival, that full appearance, which makes for good sales.

MARKET NOTES AND PRICES

NEW SOUTH WALES.

Sydney: Mr. L. T. Pearce, Market Representative, Fruitgrowers' Federation of N.S.W., reports under date November 26, as follows:— **Apples:** Allsop's Seedling 5/- to 14/-, Del. 12/- to 22/-, Demo. 10/- to 13/-, G. Smith 12/- to 20/-, Yates 12/- to 16/-.

Approximately 5,500 cases of fruit arrived from Tasmania this week, most of which would be Apples. Reduced supplies caused prices to firm. N.S.W. G. Smith and Del. of choice quality also firmed during the week. New season Apples were in request for cooking purposes, but supplies are very small up to date.

Apricots, local 3/6 to 6/- ½ bushel, inland 5/- to 10/- half bush. case. **Bananas**, N.S.W. and Qld. 3/- to 13/-

Cable Address: DAVIS, MELBOURNE. Code: "ABC," 4th and 5th Editions. Box, G.P.O. 148B.

J. DAVIS PTY. LTD., *Fruit Merchants*

8 WHOLESALE FRUIT MARKET

Consignments solicited. One Trial Invited. Best Prices obtained. Prompt Advice and Payment.
Telephone, F 3232. Bankers: The National Bank of Australasia, 271 Collins Street, Melbourne.

Telegraphic Address: "Listeria," Melbourne. **Postal Address: G.P.O. Box 555D. Telephone: F 6341.**
Codes: Bentley's A.B.C., 5th Edition. **Private: Windsor 4535.**

GEO. LISTER PTY. LTD. (Managing Director: J. R. VAIL)
Selected Agents for all Growers' Organisations Throughout the Commonwealth.
Wholesale Fruit Merchants — Licensed Commission Agents — Importers and Exporters.
No. 12 WHOLESALE FRUIT MARKET, MELBOURNE.
Having carried on a successful business for over half a century, our name stands high in the Wholesale Fruit Trade of Australia. Our spacious premises at Melbourne Wholesale Fruit Market are admirably adapted for the conduct of our large business, and growers are assured that our best efforts are always at their disposal.
Bankers: Commercial Banking Co. of Sydney, Melbourne Branch. Fidelity Bond Guaranteed by I.O.A. Insurance Co.

Silbert, Sharp & Davies
Pty. Ltd.
FRUIT MERCHANTS
17 Wholesale Fruit Market
'Phone: F 2287.

REGULAR SUPPLIES OF GOOD FRUIT, WELL PACKED AND GRADED, BRING THE BEST RESULTS.

A. MILLIS & SONS
34 Wholesale Fruit Market
EXPORTERS AND IMPORTERS
Specialty—Prompt Returns. Cheques every Wednesday. Phone: F 1862

J. W. ROSS
13 Wholesale Fruit Market
WHOLESALE FRUIT MERCHANT
Prompt Returns and Sales Notes Daily.
Tel., F 2426.

G. WOOLF
29-30 Wholesale Fruit Market
WHOLESALE FRUIT MERCHANT & COMMISSION AGENT
Telephone: F 5550.

BELL, BANSON Pty. Ltd.
Wholesale Fruit Merchants,
20 Wholesale Fruit Market, Melb.
CONSIGNMENTS OF FRUIT AND VEGETABLES SOLICITED.
Tel.: F1023; Private: JW2...
Bankers: E.S. & A. Bank, Market Branch.

T. Stott & Sons FRUIT MERCHANTS **ESTABLISHED 1882.**
26 Wholesale Fruit Market, Melbourne, And at VICTORIA MARKETS.
COUNTRY AND INTERSTATE ORDER TRADE SUPPLIED.
SHIPPING No. 41. PROMPT SETTLEMENTS. CONSIGNMENTS SOLICITED.
PHONE: F 4370. Bankers: Bank of Australasia, Melbourne.

F. CAVE & CO.
PTY. LTD.
F. CAVE, Managing Director
Wholesale Fruit Merchants and Commission Agents.
Exporters of Fresh Fruit.
9 WHOLESALE FRUIT MARKET
Telegrams "CAVECOFRUT"
PHONE: F 3930

H. LOUEY PANG & CO. PTY. LTD.
FRUIT AND PRODUCE MERCHANTS
No. 4 WHOLESALE FRUIT MARKET, MELBOURNE
G.P.O. Box No. 795F, Melbourne.
References—E. S. & A. Bank, 225 Swanston St., Melbourne.
Telegraphic Address: "PANGANCO." GOOD PRICES ASSURED
Cheques Sent Promptly. F 6532.

Tim Young & Co. Pty. Ltd.
WHOLESALE FRUIT MERCHANTS
18 Wholesale Fruit Market
Growers can be assured of receiving the very best service and prompt returns.
Cable Address "TIYOUNG"
A.B.C. Code, 5th Edition.
Box 28a, G.P.O., Melbourne.
TELEPHONE, **F 4321**
Bankers:
E.S. & A. Bank Ltd.,
Melbourne—225 Swanston Street.
Stencil or Labels on application.

CONSIGN YOUR FRUIT TO
R. A. WING & CO.
Wholesale Fruit and Produce Commission Agents,
No. 37 Wholesale Fruit Market, Melbourne.
Branches 141 Little Bourke Street and Victoria Market.
TELEPHONE: F1744.

CONSIGNMENTS OF FRUIT AND VEGETABLES
Assured Highest Market Rates.
P. A. PATRIKEOS
36 Wholesale Fruit Market
Melbourne
Telephone: F2227.

H. & S. FRANKEL
(Established 35 Years)
No. 44 WHOLESALE FRUIT MARKET, MELBOURNE.
Growers in all States are invited to send consignments. Highest market rates and prompt settlements.
Telephone: Store F4874;
Bankers. Private F1555 & F8711.
Commonwealth Bank of Australia.
£500 Fidelity Bond Guarantee.

A. E. PITT
Member of Wholesale Fruit Merchants' Association of Vic.
Established 1893.
14 WHOLESALE FRUIT MARKET, MELBOURNE.
Consignments Solicited from all States.
Growers Will Receive Top Market Value and Prompt Returns.
Fidelity Bond Guarantee for £1,000.
Reference—E.S. & A. Bank, Elizabeth St. Branch, Melbourne.
Phone: F 5035.

RIDLEY & HOULDING
Covent Garden Market, LONDON
Specialists in Australian Fruit.
Solicit consignments of Apples, Pears, Etc.
Our record of over 30 years' standing in the handling of Australian fruit, with satisfactory results, is a recommendation for growers to ship their fruit to our house.
REPRESENTATIVES—
International Fruit & Mercantile Company Ltd., Melb., Vic., Australia; Pitts & Lehman, 129 Pitt St., Sydney, N.S.W.; and A. J. Walshe & Co., Hobart, Tasmania.

SUPPORT CO-OPERATION
By Consigning your FRUIT to the
Producers' Distributing Society Ltd.
(Late Coastal Farmers' Co-operative Society Ltd.)
Agents for
"BLACK LEAF 40"
and
All Orchard Requirements.
MELBOURNE SYDNEY
NEWCASTLE DEVONPORT

trop. case. Arrivals on the Sydney market for the week ending November 23, totalled 18,522, of which 18,122 came from N.S.W. and 400 from Qld. This market is very dull, and accumulated stocks are being released at a very low figure.

Cherries: Young 2/6 to 4/6, Margaret to 6/-, Orange 3/- to 4/6, few 5/-.

Small Florence and Napoleon from 2/- per quarter bushel cases. Varieties from Young now comprise Florence, Napoleon, St. Margaret and Noble. Florence are frequently small in size and have not been taken by the one factory buyer operating. White and small Cherries are not required. Varieties from Orange are Early Lyons chiefly with a few Early Rivers, Burgdorf Seedling and Bedford Prolific. The quality of fruit from both districts has improved latterly, Early Lyons realising highest prices from Orange and St. Margaret from Young.

Citrus Fruits: Grapefruit, local standard 5/- to 8/-, special 16/-, Inland 8/- to 10/-, special 14/-; **Lemons** (Local) 3/- to 8/-, (inland) 2/6 to 10/-; **Mandarins,** 2nd crop 3/- to 10/-, few 12/- bush. case. **Navels:** N.S.W. 3/- to 10/-, Vic. 6/- to 9/-, special 12/- to 14/-. **Vals.:** 1/- to 8/-.

Gooseberries: Tas. 6/6 to 8/- half bush., Young 3/6 to 5/- quarter bush. **Mangoes,** Qld. Apple 18/- bush., Qld. T[illegible]bodine 5/- to 6/- half case. **Plums** sils[illegible], few 8/- half bush. Wilson mou[illegible] Jewel now predominating, for [illegible]it being small in size. assist[illegible]ocal 3/- to 6/-, few 8/- half [illegible]anus Inland 4/- to 7/-, few to [illegible]which [illegible]bush. case. **Papaws,** Qld. [illegible]d int[illegible], few 14/- trop. case. **Pas**[illegible]oisons, S.W. 10/- to 15/-, spec. [illegible]rior lower per half bush. [illegible] 20/-. **Pineapples,** Qld. [illegible]se. **Honeydews** 18/- to [illegible]es, N.S.W. North Coast, [illegible]/-, colored and ripe 9/- to 13/-, glasshouse 8/- to 10/-, special 13/- half case; Qld. 5/- to 7/-, spec. 8/-, repacked 8/- to 10/-, few higher per half case.

South Australia.

Adelaide (29/11/35). — Apples (eating) 8/- to 9/- case; do. (cooking) 7/- to 8/-; Apricots 7/- to 8/-; Bananas 16/- to 18/- crate; Cherries (dark) 16/- to 20/- case; do. (light) 12/- to 14/-; Gooseberries 7/- case; Lemons 6/- to 7/-; Loquats 8/-; Oranges (Common) 7/- to 8/- case; do. (Blood) 8/-; do. (Mandarin) 10/-; do. (Navel) 9/- to 11/-; do. (Poorman) 4/-; Passionfruit 30/- case; Peaches 14/- to 16/-; Pineapples 14/-; Plums (light) 3/- to 4/-; do. (dark) 6/- to 8/-; Tomatoes, 9/- to 14/- half case.

Western Australia.

Perth (22/11/35).—Apples: Dunn's Seedling, dumps, 9/- to 11/6; Yates, dumps, 9/- to 14/6; G. Smith, dumps, 10/- to 15/3; Statesman, dumps, 9/- to 13/-. Citrus: Oranges, Val. flats, 2/6 to 6/9; dumps, 4/- to 8/-; Navels, flats, 4/- to 9/6; dumps, 6/- to 14/-; Lemons, 2/- to 7/- (special to 10/-). Other lines: Apricots, ½ dumps 11/3; Loquats 6/- to 16/-; Passionfruit, ½ dumps 14/- to 18/-, dumps, local 6/- to 25/-; ex Geraldton 5/- to 23/-; Bananas 23/- to 28/- crate.

VICTORIA.

Market Report for November.

In spite of the changeful weather which marked November, the fruit trade in the Victoria Markets was quietly consistent. The beginning of the stone fruits season was ushered in with small supplies, whilst other fruits continued normal, both in supply and demand.

Citrus: Navels practically ran out during the month, except from small suppliers. The quality was not of the best, and sweet varieties are now coming in slowly. Valencias are steady and are now the main variety. Prices remained normal for November. Steady buying of the latter half will continue until Christmas, when a drop is expected.

Lemon supplies were not excessive. Demand was normal and prices on a par with previous years. Shipments overseas lessened any likelihood of a glut on the local floors, and this may react upon prices later on should a hot summer be experienced.

Apples: Good varieties were hard to get, and prices were rising during the last week.

Cherries: Supplies commenced well. Large quantities from Young, N.S.W., and small quantities from Adelaide, are reported. Local supplies were slightly below normal, but prices remained steady.

Apricots: Supplies not sufficient to cause any disturbance. Samples were mainly on the small side though of good quality and sold well.

Peaches: Only a sprinkling appeared towards the end of the month. It is anticipated that heavy supplies will be received in the next fortnight.

Tomatoes: During the early part of November, W.A. shipments arrived on the green side and had to be kept. Large supplies came from S.A., in fact, one week created a record for receivals which, with heavy supplies on hand, caused a slump necessitating the disposal of large quantities to the factories. Towards the end of the month supplies dropped and prices consequently rose.

Bananas: Supplies were heavy and quality poor. The slump caused lowered prices for poorer quality fruit, but the demand for good quality samples was maintained.

At the close of November, Christmas trade began to assume fair proportions, and if warm weather conditions continue a good demand is expected for Tomatoes, Peaches, Cucumbers and stone fruits, but at the time of going to press, a watchful-waiting attitude was being adopted.

Melbourne (2/12/35).— Quotations are at a bushel case, excepting where otherwise stated. — Apples: Eating, Del. 9/- to 12/-, few specials higher; Jons. 8/- to 12/-; R. Beauty, 7/- to 10/-; Statesman, 8/- to 10/-, few higher; Pomme de Niege, 8/- to 12/-, others 7/- to 10/-. Apples: Cooking: G. Smith, 8/- to 12/-; Five Crowns, 8/- to 10/-; Stewarts, 8/- to 10/-, others 7/- to 9/-. Apricots, 8/- to 14/-, few special lines higher. Oranges: Navel: Washingtons, average standards, 5/- to 8/-, few to 9/-, according to counts, few special wrapped lines to 11/- and 12/-, few to 13/-; common, average standards, 4/- to 6/-, a few specials higher; Vals., average standards, 4/- to 7/-, a few to 8/-, specially selected and wrapped to 12/- best counts. Lemons: Average standards, 4/- to 6/-, a few to 7/-, specially selected to 8/-. Grapefruit: Average standards, 5/- to 8/- [illegible] a few to 9/- and 10/-, specially sele[illegible]e pa[illegible] ed Mildura and Curlwaa to 15/- [illegible] to th[illegible] 16/-. Strawberries, 5/- to 9/-, [illegible]—in th[illegible] specials higher dozen pu[illegible]ately, tha[illegible] Peaches, 8/- to 14/-, few sp[illegible]ht of [illegible] higher. Pears: Dessert, 8/- to 10/-; do., culinary, 7/- to 9/-. Papaws: Qld., 8/- to 12/- double case. Cherry Plums, 4/- to 5/-. Bananas: Qld., sixes, 6/- to 8/-; sevens, 8/- to 9/-; eights and nines, 9/- to 10/- double case. Pineapples. Qld., 11/- to 16/- double case. Passionfruit, 14/- to 30/-, few specials higher. Passionfruit: Qld., 14/- to 20/- half case. Tomatoes: Adelaide, 10/- to 14/- half case; Vic., 14/- to 20/-, few specials higher.

[illegible]hest Prices. **A. S. BARR** Prompt Returns.
FRUIT EXCHANGE, BRISBANE, QUEENSLAND.
Wholesale Fruit Merchant and Growers' Agent.
A Trial Solicited. Returns Speak for Themselves. **Shipping No. 19.**
Established 1888. Registered Telegraphic Address: "Barr, Brisbane."

ROBSONS LIMITED
(Wm. Robson, Managing Director.)
Guarantee Satisfaction to Clients. Send us a Trial Consignment.
FRUIT EXCHANGE, BRISBANE, QUEENSLAND.
Account Sales and Cheques Sent Promptly.
Shipping No. 28.

Herbert Wilson Pty. Ltd.
WHOLESALE FRUIT MERCHANTS
AND COMMISSION AGENTS
Nos. 1 and 10, Wholesale Fruit Market, Melbourne.
Accredited Agents for Victorian Central Citrus Association and Affiliated Association.
City Telephone: F 6444. Private Phone: M 3055.
Bankers: National Bank of Australasia (Western Branch), Melb.

F. CHILTON
ESTABLISHED 1894
FRUIT COMMISSION AGENT
Licensed under Farm Produce Agents Act
Highest Market Prices — Prompt Returns — Reliable Advice
Registered Address for Telegrams and Cables, "CHILTONS"
References :— Bank of N.S.W., Haymarket, Sydney and Growers throughout Australia
CITY FRUIT MARKETS, SYDNEY

Ship Your Oranges, Lemons, Grapes to New Zealand
All consignments for this market will have careful attention and realise highest prices if sent to
The Co-operative Fruitgrowers of Otago Limited, Dunedin
PERSONAL SUPERVISION OF EVERY CONSIGNMENT.
Cheques posted promptly.
Drop us a Line or Cable: "Peachbloom," Dunedin.

FOR A REAL SALES SERVICE Under the Personal Supervision of the Directors
CONSIGN YOUR FRUIT TO
Minear, Munday & Miller Limited
Fruit Brokers & Commission Salesmen **Covent Garden, London.**
Sole Selling Agents in London for the South Australian Government for Fresh Fruits.
An All the Year Round Clientele for Apples, Pears, and Oranges. Sales by Private Treaty or Auction as desired.
N.S.W. Representatives.—Macdermott & Sheedy, Municipal Fruit Markets, Sydney.
West Aust. Representative.—A. Hicks, 18 William Street, Perth.
Victorian Representatives.—Messrs Gollin & Co. Pty. Ltd., 561 Bourke Street, Melbourne.
Bankers:—National Provincial Bank Ltd., Long Acre, London. Cable Address:—"ORLEMFRUIT," London.

Christmas Holiday Cruise

T.S.S. "KATOOMBA"

Leaves Melbourne December 21—Returns Melbourne January 8.
Four Popular Ports of Call—
Suva (Fiji,) Tonga (Friendly Islands), and Norfolk Island, via Sydney.
First Class from £27 to £34. Tourist Class from £16 (fully booked).
FOR RESERVATIONS AND FURTHER PARTICULARS APPLY
McILWRAITH, McEACHARN LTD., 94-96 William Street, Melbourne.

Popular Ocean Cruises

— BY —

T.S.S. "KAROOLA," 7,500 Tons

Commencing from Melbourne, January 8, 1936.
Calling at
Stanley, Burnie, Devonport (Tasmania), Sydney, Newcastle, Brisbane.
Returning to Melbourne, via Sydney
1st CLASS—£14 to £16. TOURIST CLASS—£8 to £9.
Includes Maintenance on Board at All Ports
Apply MELBOURNE STEAMSHIP CO. LTD., AGENTS,
31 King Street, Melbourne (Central 8693)

The Melbourne market manager of the Federal Citrus Council of Australia reports: Sales were as follow:—Val., average standards, 96-112, 6/-; 126-182, 7/- and 8/-; selected standards, to 10/- and 11/-; specially selected, to 11/- to 12/-; Wash. Navels, average standards, to 9/-, selected higher; commons, average standards, to 6/-, a few higher; Grapefruit, average standards, 38, 5/-; 45-53, 6/-; 60-68, 7/-; 75-84, 6/-; good standards, to 10/- and 11/-; specially selected Mildura and Curlwaa, to 15/- and 16/-. Lemons, average standards, to 5/-; a few 6/-; selected, to 7/- and 8/-.

QUEENSLAND.

Brisbane.—Messrs. Robsons Ltd. report as follows:—All **Apple** sales are maintaining firm rates, choice eating realising to 16/-, and Granny Smiths to 17/6.

Oranges of popular sizes are realising to 10/-, and **Lemons** to 11/-.

Good quality **Pines** have been scarce during the past week, smooths selling to 13/- and roughs to 12/-.

Cherries are now in plentiful supply, choice samples selling to 7/-.

Mangoes are selling to 8/- per bush. case, and **Papaws** to 10/- per trop. case.

Passionfruit are very scarce, and are realising to 18/-.

The ruling rates for **Bananas** are as follows——6's 6/6, 7's 7/6 and 8's 8/6.

Vegetable Values.—Cabbage to 11/- bag, choice Beans 10/- 30-lb. bag, Peas 5/- bag, Cucumbers 6/6 case, and Tomatoes to 6/-.

We anticipate that by our next report, there will be a plentiful supply of all stone fruit.

:: :: :: ::

Messrs. Clark & Jesser, of Brisbane, report as follows (under date November 23). — During the month **Cherries** made their appearance, and have been in heavy supply almost since the commencement, and, with the exception of a very short period, low prices have ruled.

Oranges have improved in value, and sales now are much brisker. The **Apple** supply is very light, and values now are on a high level.

The ruling prices for all lines are as follows:—**Apples:** Yates 12/- to 16/-, Democrats 14/- to 16/-, Sturmers 14/- to 15/. **Oranges:** Vals. counts 100 to 160 9/-, 180 to 200 6/6 to 7/6, smaller 5/- to 6/-. **Cherries:** 4/- to 5/-. **Apricots:** Large 10/- to 12/-, small 5/- to 7/-.

Plums are just beginning to arrive, and are realising 12/- to 15/-. **Peaches**—2/6 to 3/6 tray. **Tomatoes,** plentiful, 3/- to 5/-. **Papaws,** 4/- to 5/- dump case.

Choice **Cabbages** now scarce, and realising 11/- to 13/- bag. Pumpkins 8/6 per cwt. Marrows 1/6 to 2/- doz. Carrots 1/- to 1/6 doz. bunches. Beetroot 9d. to 1/- doz. bunches, Cucumbers 5/- to 6/- bush. case.

Pines are very scarce, rough leaf 12/- to 13/- case, smooth leaf 10/- to 11/-.

New Zealand.

Dunedin (22/11/35). — Messrs. Reilly's Central Produce Mart Ltd. report as follows: — Supplies of Cherries and Strawberries are increasing, and some nice consignments are now coming forward. Apples and Pears have firmed in price and supplies are wanted.

Increased supplies of fresh vegetables are coming to hand and meeting a good demand. New Potatoes are rather short of requirements. Green Peas are now more plentiful. Heavier consignments of Christchurch Tomatoes are arriving prices being slightly easier.

Advices from Central Otago indicate a fair crop of stone fruit, with the exception of Apricots which are rather on the light side.

Niue Bananas ex the "Maui Pomare" came to hand in prime green condition, and sold exceptionally well. An excellent demand is being experienced for ripe Bananas.

Further trans-shipments of Californian fruit from Auckland are due towards the end of the month.

Prices: Bushel and American cases: Apples, choice Del. 9/- to 10/6, Sturmers 10/6 to 12/6, Tasmas 9/-, 10/6; Ballarats 9/-, smaller grades 5/- to 6/-; Pears: W. Cole 12/-; Cal. Lemons 50/-; N.Z. Lemons 12/- to 15/-; Australian Vals. to 30/-; Pineapples 20/-; Bananas, ripes 25/-; Cal. Grapes 26/-; Pomegranates 18/-.

QUICK SALE BY AUCTION

BREMEN

FRUCHTHANDEL GESELLSCHAFT
SCIPIO & FISCHER
BREMEN
Cables: Orange Bremen.

... Our ... Junior Section

My dear Smilers,

I am pleased to be thinking of you again, and the festive season will be here soon. I am taking this opportunity of wishing you all the merriest of Christmases and the Brightest of New Years. What a lot of happiness there is to be found everywhere if we only perceive it. We can get joy in our work and in our play. Even difficult circumstances can be turned into opportunities for helpfulness if we view them in the right way. We develop ourselves as we overcome difficulties just as we develop our muscles in strenuous exercise, and we have greater mental alertness as we master problems.

I am glad to think of so many of my Smilers who will journey to the seaside or go on the holiday trips.

Please write and let me know of your experiences. Also remember I would be interested to hear about your orchard as well as your school and hobbies. Write and tell me about the varieties you grow and any ideas you have about getting people to "eat more fruit."

I often get letters and papers from America and other parts [illegible] would like some of these stamps, please write to me and I will send them to you. Also do not forget to send me the date of your birthday, and I will register the name in my birthday book and send you a packet of seeds as the birthdays come round.

We are going to be a happy band, you and I, dear Smilers. Cheerio. This is to be your page, and I'm going to print some of your letters each month.

Keep smiling,
Your cheery,
UNCLE JOE.

JUNIOR APPLE PACKING

Presentation of Trophies

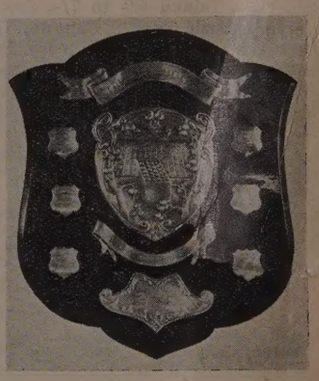
THE Upper Pakenham Hall was crowded on November 15, when the presentation of trophies won by young packers at recent Apple packing competitions were presented by Mr. J. M. Ward, Superintendent of Horticulture.

Packing classes are conducted by officers of the Department of Agriculture in fruit districts, and prospective expert packers are discovered as a result of this admirable provision. Already the movement is claimed to have an effect upon the improvement of the export pack. Fifteen classes are conducted in schools and Young Farmers' Clubs, or even in groups arranged by growers in some districts. The service is also of benefit to parents, by reason of a spread of knowledge of the best methods of packing.

Messrs. B. Krone and W. Harris have done remarkably good work in thus guiding children in this direction, and the results already justify the department in providing this worthwhile service.

The Gerrard Shields.

These are trophies presented by the Gerrard Wire Tying Machines Co. Pty. Ltd., one of which was won this year by the Pakenham Upper School at the local show, and one by the Army Road Young Farmers' Club at the Melbourne Royal Show. The latter is presented by the Gerrard Company for competition by clubs affiliated with the Young Farmers' Clubs' Association.



The Gerrard Apple Packing Shield.

Committee's Shield.

The Exporters' Handling Committee's shield was competed for at the 1935 Melbourne Royal Show, and was also won by the Upper Pakenham School. Mr. Ward stated that it was the best exhibit that had ever been presented for competition at any show which he had judged. The individual prize-winners were: Marjorie Mapleson (100 pts.), Marjorie Black (99 pts.), and Lindsay Stuckberry (98 pts.).

A special prize of £1 was given by Mr. J. T. Cross, the general manager of the Dairy Producers' Freezing Co., of Wellington, New Zealand, to Marjorie Mapleson for topping the score at the Royal Show.

A pleasing touch was given to the meeting by a presentation being made to Mr. Harris by members of the Pakenham Upper School and the Army Road Packing Classes.

An extension of the packing classes into new districts is to be desired, and the Department of Agriculture will be happy to extend facilities for instruction if so requested.

The Home Circle

::o::

Tonsils and the Appendix

(By Lois.—No. 4.)

issue, our dietist contri-mised to deal with the sub-l above, and to explain why t ingly unnecessary parts of th hould not be removed. In p ssues she has given much e advice upon general health s, the value of fruit juices to man body, maternal mortality, stion and assimilation of food, other informative matters. h this issue an unusual note is struck, and readers are bound to be impressed with her treatment of these two common but often misunderstood subjects.—Editor.]

TONSILS AND THE APPENDIX form the subject for discussion in this issue, and we shall deal with the tonsils first, because they stand at the entrance of the alimentary tract.

Sentinels of the System.

The tonsils belong to the lymphatic system, the glands of which are distributed throughout the whole body, but are very numerous in the armpits, groins and neck. The function of these lymph glands is to protect the body from self poisoning. The tonsils are situated at the back of the mouth, and they secrete a mucous for the protection of the throat, to assist in swallowing, and also for the manufacture of white corpuscles, which attack foreign matter introduced into the mouth, neutralising the poisons before reaching the stomach. They also play a most important part in maintaining the harmonious working of the various glands, and their removal definitely upsets the balance of rest.

Our Danger Signals.

ant intake of denatured ed foods, and wrong food overwo lymphatic breaks bodily toxic eam causes to increase in with the extra them, and to fool-moved is to destroy defence. Any en-glands is a danger should be promptly at-removing the cause instead effect.

ystemic Deficiency, a Cause.

The affection of tonsils in children is due to systemic deficiency. If the mother had supplied Nature with unprocessed vital foods when the building of the child's body was in progress, and continued that way during the nursing period, and then right through infancy, there could be no trouble with tonsils, or any other childish ailment recognised as inevitable.

Of course, it is inevitable by the way the majority of expectant mothers eat; the wonder is that so many babies survive. It is quite safe to say that eighteen out of twenty children are born systemically deficient, and that is allowing a good margin.

Suggested Treatment.

When a child is suffering from enlarged tonsils or of any of the glands, the only reasonable method is to cleanse the whole body. Local treatment is useless. **The most effective method is to put the child on a diet of fruit juices for a few days, keep the bowels quite free (not with drugs), give warm enemas, or a little mixture of dates and senna, then follow for several weeks a dietary consisting of fresh fruits, salads and vegetables and grated nuts.**

Gargle the throat frequently with diluted Lemon juice.

The absence of starchy foods for a week will allow the digestive system to recuperate. Of course an adherence to natural foods and natural living will be necessary to keep the tonsils healthy.

The Appendix.

The appendix is a small tube about 2½ inches long attached to the lower end of the caecum on the right side of the abdomen, just below the junction of the small intestine and the ascending colon. The appendix, like the tonsils, is regarded as a dangerous source of infection by medical science, and yet food investigators, working untiringly in an effort to understand Nature, have discovered that these "useless" organs play a most important part in the human organism, and without them human beings are maimed. Nature does not make mistakes, every organ was made for a special purpose, and the loss of even one part must inevitably impair the functioning of the others.

The Cause of Appendicitis.

Appendicitis is essentially a disease of the digestive organs. If the diet were selected, combined and balanced according to the actual needs of the body, and the law of motion and exercise observed, inflammation of the verniform appendix (appendicitis) would be unknown.

Intestinal congestion has become one of the most common diseases amongst civilised people, because such a large percentage of the coarse material known as cellulose, is removed from their food by civilised ignorance. For instance, the milling methods remove every trace of roughage from the grain, leaving nothing but a white mass of starch unbalanced and impoverished, and very difficult to force through the bowels. The peelings are discarded from fruits and vegetables, leaving nothing to stimulate the liver or the peristaltic activity of the intestines. Inflammation is not caused by Orange pips, Grape or Passion fruit seeds, but by constant irritation due to pressure of hardened faecal matter retained in the bowels for long periods.

The Function of the Appendix.

There are three divisions of the large colon in the intestinal tract, called ascending, transverse and descending. The descending colon is located on the left side, the ascending colon connects with the small intestine and is located on the right side. The transverse colon passes from right to left upon a line opposite the navel. To the lower part of the ascending colon, where the small intestine connects, is attached the appendix. Its function is to manufacture a lubricating fluid, and as the food passes into the ascending colon from the intestine where it must move upwards against the force of gravity it is lubricated by the fluid secreted in the appendix, which assists in digestion and causes the food substances to move freely onwards.

Suggested Treatment.

A temporary complete abstinence from food, together with warm lemon, grapefruit, and orange drinks, and colon irrigation to remove morbid matter will soon terminate the inflammation, following which a rational and natural diet must be adhered to, to prevent a recurrence. Remember that the appendix is a most important secretary gland, and its removal is not a cure, only a suppression, and more serious complications are bound to ensue following its removal. Statistics show that one person in nine now suffers from some form of cancer, and that it is very prevalent in the alimentary tract. To be forewarned is to be forearmed, and if we are wise, we will seriously consider the question of tonsil and appendix infection and, by right living, prevent even the possibility of having to decide for or against their removal.

In my next article I plan to tell you something about the "Importance of the Eudocrine Glands," but meantime here are some recipes which I can recommend.

A Laxative Fruit Mixture.

½ lb. dates, ½ lb. raisins (seeded), ½ lb. Prunes, ½ lb. dried Figs, 3 tablespoons treacle, 3 tablespoons senna powder.

Put the fruit through mincer, mix in the treacle, then add senna powder and blend very thoroughly.

Take ½ to 1 teaspoonful before retiring.

Uncooked Raisin Squares.

1 cup seeded Raisins, and ½ of 1 Lemon peel put through mincer, ½ lb. Granose biscuits put through mincer, a little mixed spice, 1 dessert spoon light brown sugar, 1 egg well beaten. Heat a very scant ½ lb. copha until melted, add a little essence of almond, mix all well together and pour into flat dish lined with grease paper, press well, set away to cool, and cut into squares.

Wholemeal Ginger Sponge.

1 tablespoon butter, ½ cup honey, 1 egg, ½ cup milk, 1 cup wholemeal, 1 small teaspoon cream of tartar, small ½ teaspoon carbonate of soda, 1 small dessertspoon ground ginger.

Grease on sandwich tin, beat butter and honey together with wooden spoon, beat egg well and add slowly to butter. Add the milk slowly, stir in sifted meal, ginger, cream of tartar and soda and a pinch of salt. Pour into tin and bake in moderate oven for fifteen minutes. Turn on sieve to cool, cut in halves and fold together with whipped cream.

FIRST AID TO THE INJURED.

How to Treat Bites and Stings.

Some Important "Do's" and "Don'ts."

Don't fail to act as if the person were bitten by a mad dog. Let the doctor decide when he comes. Meanwhile, act promptly.

Don't hesitate to use pressure between wound and heart. Crush the limb above the wound with both hands until a tourniquet can be applied.

Don't stop bleeding. Allow wound to bleed freely, keeping parts low.

Don't hesitate to cauterise wound. Apply carbolic acid. If the doctor cannot come quickly, use a red hot wire.

It is necessary to act promptly, both in bites of dogs and snakes, and if carbolic acid is not handy, then caustic potash or nitrate of silver will do. They cause considerable pain, though not so much as a red hot iron, which should be only used on the limbs. As a last resource, it is better to wash the wounds with hot or cold water, rather than to do nothing; afterwards Iodex can be applied, as the iodine in Iodex will act as an antiseptic.

For insect bites and stings, wash with strong soap suds or any other alkaline solution, such as ammonia water, baking soda, or washing soda, and afterwards dress with Iodex ointment. To stop the pain of bee stings, apply ammonia, and for wasp stings use vinegar, in each case dressing the part afterwards with Iodex.

To prevent bites of insects, fleas, mosquitoes, etc., a solution of two ozs. of sulphate of magnesia to a pint of water should be applied freely to the exposed parts of the body, and allowed to dry without wiping. This will leave a fine powder on the surface of the skin, which insects will not attack.

GREAT THOUGHTS.

What is wrong with the world to-day? Not the ability to produce, for production has outstripped consumption. Under our present financial structure machinery will continue to progressively put more people out of work, and reduce the purchasing power of the people. Various plans are put forward, shorter working hours, Socialism, industrial co-operation, Communism, Social Credit, and so on.

What says the church? For centuries the emphasis has been laid on a blissful future state, when we pass through this "vale of woe" to the "land that is fairer than day"—in the sweet bye and bye. Fortunately, that idea is giving way in the light of a better understanding of the social message of the Galilean teacher. He is still the greatest force in the world to-day. The "Heaven" He spoke of should be interpreted harmony, not bye and bye, but here and now. Peace on earth and goodwill to men. Do we adore but ignore? "Holiness" means wholeness, a sound mind in a sound body. Full, free abounding life now.

Jesus gave the world a new interpretation of God,—not a tribal and avenging Jehovah, but Father. God, —good,—all good: Unity; Peace, Love —here and now. "I in them and thou in Me that they may be one in us." The greatest thing any man or woman can do is to realise his or her oneness with the Divine. The Sermon on the Mount and the Golden Rule—Do unto others as ye would that they should do to you—are not words of a misrepresented, pale, white-robed dreamer, but the most practical and vital force in this busy world of ours. When the world, you and I, accept and put into practice the teachings of the world's first gentleman, the new era will dawn. We do not have to wait till the bye and bye, for to the Kingdom of Heaven (harmony) is within you.—"Divine Science."

Exterminating Rabbits.

We have received from the author, David G. Stead, Watson's Bay, N.S.W., a copy of "The Rabbit in Australia," giving the History, Life Story, Habits, Effect upon Australian Primary Production, and Best Means of Extermination.

This 108-page book is being sold by the author for 2/- post free, and is intended to assist in the eradication of these pests. Mr. Stead labels the rabbit as Public Enemy No. 1, and claims that its menace in Australia is so great that it would be almost impossible to exaggerate its possibilities. Fencing, he claims, is impracticable, and wholesale destruction by the co-operation of the whole of the farming and pastoral communities, plus Government action on Crown lands is the only means by which the loss to primary producers can be reasonably possible of saving. Fumigation by gas, he concludes, is the only workable method, and by far the least expensive.

Printed and Published by the Horticultural Press Pty. Ltd., 78a Victoria Street, Melbourne. Phones: F 2656, F 2657; and at 439 Kent Street, Sydney.

UNHARVESTED FRUIT.

Study Reveals Big Wastage.

A STUDY of the latest figures released by the Federal-State Agricultural Statistician regarding Californian fruits reveals an increase of fruit unharvested (left on trees) and creating a problem for the American fruitgrower.

The report shows that the largest wastage occurs in Clingstone Peaches, other varieties being almost entirely absorbed. Comparing 1934 with 1933 (in brackets) and reading the figures as tons, the following will indicate the margins:

Apricots—139,000 (268,000) produced, all harvested.

Cherries—16,700 (24,400) produced, all harvested.

Peaches, Clingstone — 324,000 (351,000) produced, but only 271,000 (265,300) harvested.

Peaches, Freestone — 171,000 (179,000) produced, all harvested.

Pears—233,000 (221,000) produced, and 224,000 (181,000) harvested.

—62,000 (57,000) produc- all harvested.

will be seen, supported by igures for the past four years, that whilst Apricots have all been harvested each year, the bulk of them being dried, allowing use of everything produced, this benefit was not extended to all Peaches, for though 112,200 tons of Freestones were dried and 50,900 tons used in the fresh state, the use of Clingstones was seen in 191,300 tons canned, only, 48,000 tons dried and 31,700 tons used fresh, whilst 53,000 tons remained unharvested.

This condition in stone fruits is largely responsible for the restriction of production which has been enforced in California; this matter is of considerable interest to Australian growers. Prices here are higher to the grower, for whereas our growers receive approximately £10 per ton for their fruit, California growers have to accept £6 or lower to dispose of what fruit the canners will accept.

The figures shown in brackets above, reveal that although the production of Pears and Plums was slightly higher in 1934 than in the previous year, that of Apricots and Peaches was considerably lower and the enormous quantity of 53,000 tons of Clingstone Peaches had to be left on the trees last year and 86,000 tons in 1933, not altogether due to a phenomenal harvest.

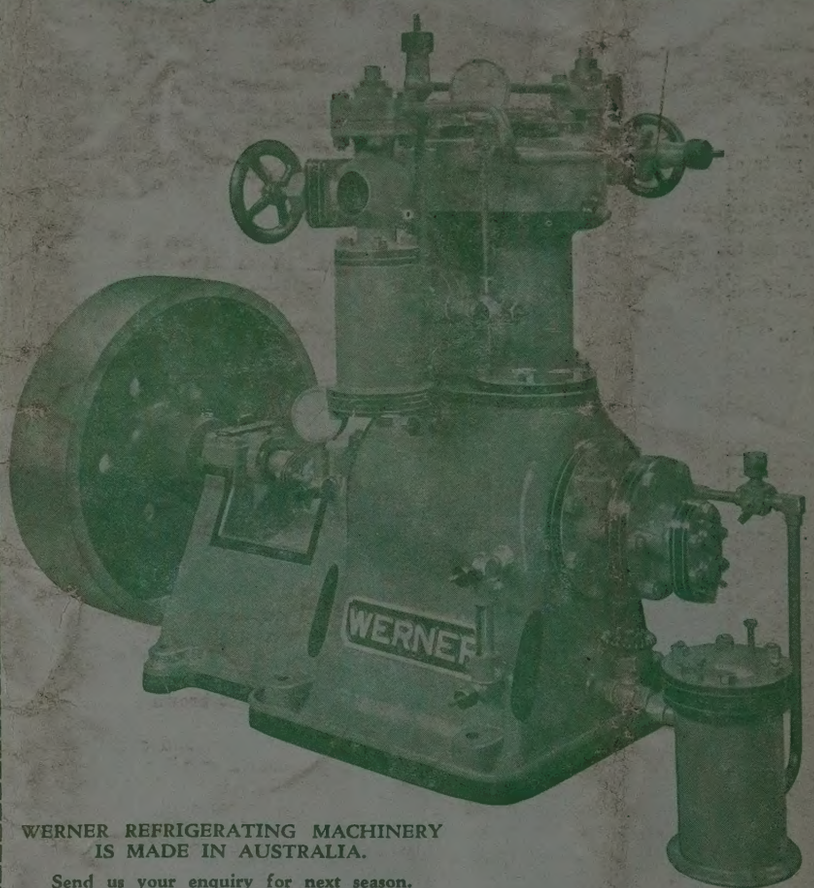
Under other circumstances the closing paragraph of the report would be pathetic but since it favours Australian growers we quote it as read: "One of the most depressing factors in fruit production in California just now is the great difficulty, and in most cases, the entire impossibility of export of dried and canned fruits to some European countries and to Canada.

"In the case of Canada, the import quotas, financial exchange restrictions and import duties are almost, if not quite, prohibitive to U.S. fruits. The Empire trade co-operation between Canada and Australia giving favoured arrangements for Australian exports, has been an important deterrent to Californian supplies going to Canada. To meet this loss we need to encourage an enlarged domestic consumption of Californian fruits."

"WERNER" PLANTS Refrigerate Over 1½ Million Cases

of Fruit in over 60 Stores throughout the Commonwealth

We design and Install Plants to Store from 500 Cases upwards



Enclosed Type Ammonia Compressor *Suitable for* Full Automatic Control

Type of Compressor made by Werner 10-to upwa

WERNER REFRIGERATING MACHINERY IS MADE IN AUSTRALIA.

Send us your enquiry for next season.

R. WERNER & CO. PTY. LTD

Refrigerating Engineers

54-86 BURNLEY STREET, - - RICHMOND

'Phones: J 1161 (4 lines) and J 1087.

CITY SHOW ROOM: 610 LITTLE COLLINS STREET, MELBOURNE.

AGENTS:—

N.S.W.: R. J. LINDSAY. 99 Kippax St., Sydney.

S.A.: HARRIS, SCARFE LTD., Grenfell St., Adelaide.

ATKINS (W... 894 Hay ...

To our mind, this should impress two fundamental arguments upon all engaged in the fruit industry in Australia. Firstly, the value of Empire co-operation with a continuance of Empire preferences and secondly, the great need for increasing local consumption of all products against the time, if ever, when any present market may become closed or restricted to our goods.

AN APPLE A DAY.

JUST REFLECT. An Apple is a natural and delightful medicine. It contains mineral salts which keep the blood and tissues in proper condition. It contains vitamins, the stored sunlight which is essential for good health. And it contains acids which promote appetite and aid digestion.

Then the teeth. The acid of an Apple stimulates the salivary glands, whose action helps the fibrous particles of the Apple to wash away clinging foodstuffs from the teeth. In addition, dentists tell us that Apple-eating is one of the most effective ways of encouraging the normal growth of the teeth.

And yet Victoria—meaning you and me and all of us—eats only a quarter of an Apple a day per head. It's not enough. Not nearly enough. We cannot start thinking it's nearly enough until we are eating—all of us—at least one whole Apple a day.

:: :: ::

The foregoing was stated in a booklet issued several years ago in an effort to increase the Apple-eating habit.

These statements, and others of a similar character, of educational value and backed by medical authority, need to be made again and again. They should be made in booklets, newspapers, in school papers and over the air.

A tiny levy per case would provide sufficient funds to advertise effectively, and thus lift Apple consumption.

This is real and effective service of practical value which can be attended to at once.

FOWL MANURE

Good fowl manure is one ... fertilisers that a farmer ca... as it contains the three mai... foods: nitrogen, phosporus and p... as well as a great amount of hu... which is badly needed in most soils.

The amount of plant food in a ton of manure depends upon the amount of water it contains, and the kind of litter used. Average barnyard manure contains about ten pounds of nitrogen, seven pounds of phosphoric acid, and fifteen pounds of potash per ton.

Apply not less than five tons per acre if your soil is at all depleted of certain plant foods; ten tons per acre is even better. If your manure could be applied in conjunction with a cover crop, and the whole mass turned under in the spring you will be adding a lot of new life to any worn out soil.

Jimmy: "Mummy, what do you want for your birthday?"

Mummy: "A nice, well-behaved little boy."

"Mummy, that is fine. Then I should have a boy to play with."